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ABSTRACT

This is a teacher's guide to an easy-to-read, slower-paced mathematics text designed for students who have learning, reading, and language problems. What fractions are, how to find equivalent fractions, how to simplify fractions, and computation with fractions are included. Each lesson in the eight units focuses on only one major concept, and includes comprehension exercises with an answer key. Fifty-four duplicatable, blackline master worksheets are included in the teacher's guide. A description at the bottom of each page states the concept being reinforced or reviewed, and the corresponding unit and page in the student's workbook. The first worksheet of a unit is designed as a pre/post test; the last worksheet of a unit is a unit review. Some are designed for repeated use. Teaching suggestions are briefly presented, as are notes for each page. An answer key for the student's workbook is included. (MNS)

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TEACHER'S GUIDE & RESOURCE

Math in Action: Simple Fractions

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Math in Action: Simple Fractions

Teacher's Guide & Resource

Teacher's Guide and Duplicatable Blackline WorkMasters™

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Contents

Teacher's Guide SF3–10
- Overview 3
- Readability 3
- Objectives 3
- About *Simple Fractions* 3
- How to Use *Simple Fractions* 4
- Teaching Suggestions 4
- Notes on the Units (with teaching suggestions) 4
- Answer Key (for *Simple Fractions* student text and WorkMasters) 7
- Record of Achievement 9
- Award of Excellence 10

Duplicatable Blackline WorkMasters SF11–64
Student text pages for each WorkMaster are listed in parentheses.

Unit 1: Fractions All Around You SF11–15
- Unit pre-post test 11
- A Fraction of a Whole Thing or Whole Group *(pp. 6–7)* 12
- Equal Parts of a Whole Thing or Whole Group *(pp. 8–9)* 13
- Dividing Groups into Equal Parts *(p. 10)* 14
- Unit review: Fraction Check 15

Unit 2: Naming Fractions SF16–21
- Unit pre-post test 16
- The Parts of a Fraction *(p. 13)* 17
- Fraction Crossword *(p. 14)* 18
- What's the Fraction? *(p. 15)* 19
- Find the Fractions *(p. 16)* 20
- Unit review: Fraction Check 21

Unit 3: Different Names for the Same Amount SF22–29
- Unit pre-post test 22
- Fractions That Equal 1 *(p. 19)* 23
- Fractions That Equal 1 or More Than 1 *(pp. 19–20)* 24
- Mixed Numbers as Fractions *(p. 21)* 25
- Equivalent Fractions *(p. 22)* 26
- More Equivalent Fractions *(p. 22)* 27
- Kinds of Numbers *(p. 23)* 28
- Unit review: Fraction Check 29

Unit 4: Renaming Fractions SF30–39
- Unit pre-post test 30
- Higher and Lower Equivalents *(pp. 25–26)* 31
- Raising Terms *(p. 27)* 32
- An Equivalent Fractions Table *(p. 28)* 33
- What Is the Missing Term? *(p. 29)* 34
- Reducing to Lowest Terms *(p. 30)* 35

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The Greatest Common Factor *(p. 31)* 36
Renaming Improper Fractions and Whole or Mixed Numbers *(pp. 32–33)* 37
Practice Renaming Fractions *(pp. 30–33)* 38
Unit review: Fraction Check 39

Unit 5: Comparing Fractions **SF40–46**
Unit pre-post test 40
Larger or Smaller? *(pp. 36–43)* 41
Check These Worksheets *(pp. 37–44)* 42
Compare Unlike Fractions *(pp. 38–40)* 43
The Lowest Common Denominator *(p. 39)* 44
Put Them in Order *(pp. 41–43)* 45
Unit review: Fraction Check 46

Unit 6: Multiplying Fractions **SF47–52**
Unit pre-post test 47
Multiplying Fractions *(p. 47)* 48
Multiplying Whole or Mixed Numbers *(p. 48)* 49
Simplify First *(p. 49)* 50
Unit 6: Word Problems *(pp. 46–49)* 51
Unit review: Fraction Check 52

Unit 7: Adding and Subtracting Fractions **SF53–58**
Unit pre-post test 53
Adding or Subtracting Like Fractions *(pp. 52–53)* 54
Worksheet for Adding and Subtracting Unlike Fractions *(pp. 54–55)* 55
Subtracting with Whole or Mixed Numbers *(pp. 56–57)* 56
Unit 7: Word Problems *(pp. 52–57)* 57
Unit review: Fraction Check 58

Unit 8: Dividing Fractions **SF59–63**
Unit pre-post test 59
Practice Dividing Fractions *(p. 61)* 60
Dividing by Whole or Mixed Numbers *(p. 62)* 61
Unit 8: Word Problems *(pp. 61–63)* 62
Unit review: Fraction Check 63

Simple Fraction Review **SF64**

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SIMPLE FRACTIONS Teacher's Guide

by William Lefkowitz and Patricia Yarhi Kaplan

OVERVIEW

Designed for Special Needs

Simple Fractions teaches basic concepts and skills requisite for computing with fractions. It was specifically designed for students who have special learning, reading, and language problems.

The components of *Simple Fractions* are a student text and duplicatable blackline WorkMasters that teach students what fractions are, how to find equivalent fractions, and how to simplify, add, subtract, multiply, and divide fractions.

Simple Fractions is part of the Janus ***Math in Action*** series. ***Word Problems,*** a program of workbooks and WorkMasters that help students understand and solve word problems, is also part of that series. All the materials can be used in mainstreamed, special-ed, ABE, LEP, and ESL classrooms as well as sheltered workshops and vocational training programs.

READABILITY

Average readability for *Simple Fractions* is 2.0, according to the revised Spache Readability Formula. Target words in the student text are designated on the first page of every unit and defined in the glossary at the end of the book. The math skills level starts at third grade and progresses to eighth grade by the end of the book.

OBJECTIVES

Janus *Math in Action: Simple Fractions* can help students fulfill math requirements for graduation. The purposes of this program are to help students:

- gain an understanding of fractions as part of math problems they would do in real life;
- learn strategies to help them solve math problems containing fractions;
- apply their learning to everyday situations.

Upon completion of this program, students should be able to accomplish these learning objectives:

- give examples of whole and fraction amounts;
- identify equal and unequal parts of a whole amount;
- identify the terms of a fraction;
- name fractions hidden in word problems;
- read, write, and say fractions from ½ to 1/20;
- give examples of proper and improper fractions and whole and mixed numbers;
- give examples of equivalent fractions;
- reduce fractions to lowest terms;
- rename whole and mixed numbers as fractions;
- simplify fractions to their lowest forms;
- find the lowest common denominator;
- identify the larger of two fractions;
- put a set of fractions in order, smallest to largest;
- simplify fractions before multiplying them; and
- add, subtract, multiply, and divide simple fractions.

ABOUT *Simple Fractions*

Textbook Format

The textbook is formatted so that students can easily recognize what to do on every page. All units open with a short discussion of the major concept to be taught and a list of target words.

Lessons are one or two pages; each lesson focuses students on one concept. Every lesson includes comprehension exercises and an answer key, and is supported by at least one WorkMaster that reinforces its teaching.

All units end with "Check Yourself," comprehension exercises, and "Bonus Work," supplementary activities that reinforce or extend learning.

WorkMaster Format

The WorkMasters are organized in units that correspond to those in the text. A description at the bottom of each WorkMaster states the concept being reinforced or reviewed, and the corresponding text unit and page. The first WorkMaster of a unit is designed as both a pre- and post-test; the last WorkMaster is a unit review. Some WorkMasters are designed for repeated use; some include an extra-credit activity called "Bonus."

About the Glossary

All target words are listed alphabetically in the glossary. The words are divided into syllables to help students decode, and narrowly defined to reflect the concepts taught in the text.

HOW TO USE *Simple Fractions*

Introducing *Simple Fractions*

Here's one way you might get students ready for *Simple Fractions:* Bring in cookbooks, sale ads (example: "⅓ off!"), and tools that show fractions. Have students look through and handle the materials, directing them to find fractions. Discuss with your students how those fractions are important. Then distribute the text and read the introduction out loud.

Teaching a Unit

A typical sequence for covering a unit might be:

- Administer the pre-test to help you diagnose your students' strengths and weaknesses.
- Read the unit introduction out loud and discuss it with your students. Encourage them to think of other situations that involve fractions.
- Go over "Math Words" orally. Focus students on learning one new word a day. Quiz them periodically on their new and old math words.
- Do lessons as a whole class. Before you start a lesson, review any past learning that students will

need. Then read the new lesson, walking through the steps on the board.

- Have students do the comprehension exercise. Circulate around the room, checking their work. Before the period ends, review the concepts they learned, then assign the appropriate WorkMaster or your own exercise as seatwork or homework.
- At the end of the unit, administer the post-test to check students' progress.

TEACHING SUGGESTIONS

Help Your Students Succeed

Special-needs students are easily frustrated and discouraged when they are learning new concepts and skills. Understanding what some of their learning problems are can help you find ways to teach them. Talk with special-ed teachers in your school about learning behaviors that you should be aware of. Here are only a few:

Many of your students may have difficulty focusing on what they are learning. Some students can only handle one idea at a time; some are not able to abstract. A tightly-structured syllabus and classroom can help those students succeed. Encourage students to participate in their learning—asking questions, formulating answers, sharing their conclusions with the class.

Some special-needs students may have difficulty retaining their learning. They may be able to apply skills learned one day, but forget them the next. Constant repetition, positive reinforcement, and review can help them. Get your students to invest in their own learning by letting them record their progress on their own Record of Achievement (SF9).

Different students learn best in different ways: some by visual examples, some aurally, and others kinesthetically. Some students learn best working in groups, while others by working alone. Vary teaching techniques to incorporate the different ways students learn. Talk with special-ed teachers for suggestions.

Get Yourself Ready!

To get the best use of *Simple Fractions,* preview the text and WorkMasters. Find out what lessons need modifying to fit your needs; know which WorkMasters correspond to a lesson; develop additional materials to reinforce, review, or expand teaching.

We recommend that you make an answer key for the text unit reviews and WorkMasters, and place it in an accessible place. Run off many copies of the Award of Excellence (SF10) so that you can award students immediately for accomplishing a difficult lesson. Have additional extra-credit activities on hand for students who finish their work early.

NOTES ON THE UNITS

Corresponding WorkMasters are listed in parentheses after each page description.

Unit 1: Fractions All Around You

Target words: *equal, fraction, unequal*

This unit defines a whole amount and fractions that are equal parts of a whole amount.

PAGE 5: **Fractions All Around You**

Students are introduced to fractions as part of their everyday life. (Unit pre-post test, SF11)

PAGE 6: **Whole Things and Whole Groups**

A whole amount can be one thing such as a mile, or a group of things such as an 8-mile race. (SF12)

PAGE 7: **What's a Fraction?**

Students learn that a fraction shows an amount that's part of a whole thing or group. (SF12)

PAGE 8: **Equal Parts of Whole Things**

When a whole amount is divided into equal parts, those parts are called *equal* fractions. (SF13)

PAGE 9: **Make Some Equal Parts**

By folding a sheet of paper into halves and fourths, students learn that each part equals the others and that each is an equal fraction. (SF13)

PAGE 9: **Equal Parts of a Whole Group**

Students learn that a whole group can also be divided into equal fractions. (SF13)

PAGE 10: **Dividing a Whole Group into Equal Parts**

This lesson shows what amount a fraction equals when a group is divided into equal parts. (SF14)

PAGE 11: **Unit Review**

Students apply what they learned in this unit. (Unit review, SF15; book review, SF64)

Unit 2: Naming Fractions

Target words: *denominator, name, numerator, terms*

Students learn how to name fractions they see in math problems and real life.

PAGE 12: **Naming Fractions**

This lesson describes places where students will see, read, and use fractions. (Unit pre-post test, SF16)

PAGE 13: **Denominators and Numerators**

The denominator stands for all the equal parts in a whole amount; the numerator stands for the parts that are counted out of the whole amount. (SF17)

PAGE 14: **Reading and Saying Fractions**

Students learn to read and say fractions from ½ to ½₀, and to turn them into plural fractions. (SF18)

PAGE 15: **Naming the Terms**

This lesson helps students name the denominator and numerator of a fraction. (SF19)

PAGE 16: **Fractions in Word Problems**
This lesson focuses on naming the terms of fractions in word problems. (SF20)

PAGE 17: **Unit Review**
Students apply what they learned in this unit. (Unit review, SF21; book review, SF64)

Unit 3: Different Names for the Same Amount

Target words: *equivalents, improper fraction, mixed number, proper fraction, whole number*
This unit teaches students equivalent fractions.

PAGE 18: **Different Names for the Same Amount**
Using the example of money, students learn that different fractions that equal the same amount are equivalent fractions. (Unit pre-post test, SF22)

PAGE 19: **Fractions That Equal 1**
A fraction equals 1 when its numerator is the same as its denominator. (SF23)

PAGE 20: **Fractions That Equal Many Whole Things**
A whole number equals a fraction when that number is the numerator and 1 is the denominator. (SF24)

PAGE 21: **Fractions That Equal More Than Whole Things**
This lesson introduces students to mixed numbers and how to write mixed numbers as improper fractions. (SF25)

PAGE 22: **Fractions That Equal the Same Amount**
This lesson shows students how fractions with different terms can equal the same amount. (SF26, SF27)

PAGE 23: **Names to Know**
Proper and improper fractions and whole and mixed numbers are described. (SF28)

PAGE 24: **Unit Review**
Students apply what they learned in this unit. (Unit review, SF29; book review, SF64)

Unit 4: Renaming Fractions

Target words: *factor, raising terms, reducing terms, rename, simplest form, simplify*
Students learn how to simplify fractions to their lowest terms.

PAGE 25: **Renaming Fractions**
This lesson shows students how they might use equivalent fractions in real life. (Unit pre-post test, SF30; SF31)

PAGE 26: **Lower and Higher Terms**
In order to change a fraction to an equivalent, students learn they must raise or lower its terms. (SF31)

PAGE 27: **Renaming Fractions to Higher Terms**
Students learn how to raise the terms of a fraction by multiplying both terms by the same whole number. (SF32)

PAGE 28: **Raising to the Next Highest Terms**
Students discover that they can raise the terms of a fraction by any whole number. (SF33)

PAGE 29: **Finding the Missing Term**
This lesson teaches students how to find a missing term in a higher equivalent. (SF34)

PAGE 30: **Reducing to the Lowest Terms**
In order to reduce a fraction to its lowest terms, both terms must be divided evenly by the same factor. Students learn that a quick way to reduce a fraction is to divide both terms by their greatest common factor. (SF35, SF38)

PAGE 31: **Finding Lowest Terms**
A model of a table that students can use to help them find the greatest common factor is taught. (SF36, SF38)

PAGE 32: **The Simplest Form**
This lesson teaches students how to simplify proper and improper fractions. (SF37, SF38)

PAGE 33: **Renaming Improper Fractions**
Students learn how to simplify improper fractions by renaming them as mixed numbers, and how to check their answers by changing mixed numbers back to improper fractions. (SF37, SF38)

PAGE 34: **Unit Review**
Students apply what they learned in this unit. (Unit review, SF39; book review, SF64)

Unit 5: Comparing Fractions

Target words: *lowest common denominator, multiple*
This unit helps students discriminate the larger and smaller fractions between two or more fractions.

PAGE 35: **Comparing Fractions**
Using a real-life situation as an example, students learn why they may need to compare different fractions. (Unit pre-post test, SF40; SF41)

PAGE 36: **Different Denominators, Same Numerators**
Help students conclude that when they compare fractions with different denominators but the same numerators, the larger fraction has the smaller denominator. (SF41)

PAGE 37: **Same Denominators, Different Numerators**
When fractions have the same denominator but different numerators the larger fraction is the one with the larger numerator. (SF41, SF42)

PAGE 38: **Different Denominators, Different Numerators**
Students learn that before they can compare two or more fractions with different denominators and numerators, they must rename the fractions using the lowest common denominator. (SF41, SF42, SF43)

PAGE 39: **Finding the LCD**
This lesson teaches the steps for finding the lowest common denominator by finding the same multiple. (SF41, SF42, SF43, SF44)

PAGE 40: **Which Fraction Is Larger? Which Is Smaller?**
Students walk through all the steps for comparing two or more fractions with different denominators and numerators. (SF41, SF42, SF43)

PAGES 41–43: **Putting Fractions in Order by Size**
These lessons teach students how to put different kinds of fractions in order from smallest to largest. (SF45)

PAGE 44: **Unit Review**
Students apply what they learned in this unit. (Unit review, SF46; book review, SF64)

Unit 6: Multiplying Fractions

Target words: *simplify before multiplying*
Strategies for multiplying fractions by a fraction and by whole and mixed numbers are taught.

PAGE 45: **Multiplying Fractions**
Reducing recipes is an example of when students might multiply fractions in real life. Encourage students to think of other real-life situations. (SF47)

PAGE 46: **Multiplying with Fractions**
When students multiply an amount by a fraction, they are finding how much that fraction is *of* that amount. (SF51)

PAGE 47: **Multiplying a Fraction by a Fraction**
This lesson teaches students to first multiply the denominators of two fractions together, and then multiply their numerators together in order to find the answer. Students also learn how to reduce answers. (SF48, SF51)

PAGE 48: **Multiplying a Fraction by a Whole or Mixed Number**
Students learn the steps for multiplying a fraction by a whole or mixed number. (SF49, SF51)

PAGE 49: **Simplify Before You Multiply**
Help students conclude that simplifying the terms of fractions *before* multiplying them is the shortest way of solving the problem. (SF50, SF51)

PAGE 50: **Unit Review**
Students apply what they learned in this unit. (Unit review, SF52; book review, SF64)

Unit 7: Adding and Subtracting Fractions

Target words: *like fractions, unlike fractions*
Students learn basic steps for adding and subtracting fractions in different kinds of math problems.

PAGE 51: **Adding and Subtracting Fractions**
A real-life example of adding fractions is discussed. Ask students to think of other examples, as well as examples for subtracting fractions. (SF53)

PAGE 52: **Adding Like Fractions**
Students learn how to add fractions with the same denominators. Have students practice adding both horizontal and vertical problems. (SF54, SF57)

PAGE 53: **Subtracting Like Fractions**
This lesson teaches students how to subtract fractions that have the same denominators. (SF54, SF57)

PAGE 54: **Adding Unlike Fractions**
Help students conclude that before they can add fractions with different denominators, they must find the LCD for those fractions. (SF55, SF57)

PAGE 55: **Subtracting Unlike Fractions**
Students learn that they must find the LCD for fractions with different denominators before they can subtract them. (SF55, SF57)

PAGE 56: **Subtracting from a Whole Number**
In order to subtract a fraction from a whole number, students must first change the whole number to an improper fraction. (SF56, SF57)

PAGE 57: **Subtracting from Mixed Numbers**
Students learn to subtract from mixed numbers by first renaming them as improper fractions. (The concept of borrowing from mixed numbers is not taught.) (SF56, SF57)

PAGE 58: **Unit Review**
Students apply what they learned in this unit. (Unit review, SF58; book review, SF64)

Unit 8: Dividing Fractions

Target words: *divisor, reciprocal*
This unit teaches the steps for dividing fractions by fractions and by whole and mixed numbers.

PAGE 59: **Dividing Fractions**
Help students conclude that when they divide a fraction into an amount, they are finding out how many times that fraction goes into that amount. (Unit pre-post test, SF59)

PAGE 60: **Finding the Reciprocal**
This lesson teaches students how to identify the divisor and find its reciprocal.

PAGE 61: **Dividing a Fraction by a Fraction**
Basic steps for dividing a fraction by a fraction are presented. (SF60, SF62)

PAGE 62: **Dividing with Fractions and Whole or Mixed Numbers**
This lesson walks students through the steps for dividing fractions by whole and mixed numbers. (SF61, SF62)

PAGE 63: **Unit Review**
Students apply what they learned in this unit. (Unit review, SF63; book review, SF64)

Simple Fractions Student Text and WorkMasters Answer Key

In each unit, student text Unit Review answers are followed by WorkMaster answers.

Unit 1: Fractions All Around You

Page 11 **1.a.** equal **b.** unequal **c.** unequal **d.** equal **3.a.** part **b.** equal **c.** amount **d.** group

SF11 **A. 1.** $\frac{1}{8}$ **3.** $\frac{5}{2}$ **4.** $\frac{66}{1}$ **5.** $\frac{3}{4}$ **6.** $\frac{8}{8}$ **B.** (G = group T = thing) **1.** G **2.** G **3.** T **4.** G **5.** T **6.** G **7.** G **8.** T **9.** G **10.** T **D. 1.** 2 **2.** 4 **3.** 3 **4.** 4 **5.** 1 **6.** 6 **E.** Circle 1., 2., 6.

SF12 **Set B** **1.** c **2.** a **3.** e **4.** b **5.** d

SF13 **Set A** **1.** 4 **2.** 6 **3.** 8 **4.** 10 **5.** 12 **Set B** **1.** 9 **2.** 4 **3.** 6 **4.a.** 100 **b.** 20 **c.** 10 **d.** 4 **e.** 2 **5.a.** 60 **b.** 3,600

SF14 **Set A** **1.** 10 **2.** 5 **3.** 4 **4.** 2

SF15 **B. 2.** 12 **3.** 3 **4.** 4 **5.** 10 **6.** 5 **7.** 60 **D. 1.** 6 **2.** 4 **3.** 3 **4.** 2

Unit 2: Naming Fractions

Page 17 **1.b.** six eighths **c.** one half **d.** two halves **e.** three ninths **f.** one sixteenth **g.** three fifteenths **h.** six seventeenths **i.** one twentieth **j.** seven twentieths **k.** four fifths **l.** eight elevenths **2.a.** $\frac{2}{6}$ **b.** $\frac{5}{12}$ **3.a.** $\frac{3}{8}$ **b.** $\frac{9}{10}$ **4.a.** denominator, bottom **b.** numerator, top **c.** terms **Bonus Work** **1.a.** two twenty-firsts **b.** five thirty-seconds **c.** seven fifty-fifths **d.** twenty hundredths

SF16 **A. 1.** 2 **2.** 3 **3.** There are 3 equal parts in the whole amount. **4.** You are counting 2 of the parts. **B. 1.** a **2.** d **3.** e **4.** b **5.** f **6.** c **C. 1.** $\frac{4}{6}$ **2.** $\frac{2}{6}$ **3.** $\frac{1}{2}$ **4.** $\frac{3}{3}$ **5.** $\frac{9}{9}$ **D. 1.** $\frac{7}{8}$ **2.** $\frac{1}{3}$

SF17 **The Denominator** **2.** 8 **3.** 8 **4.** 12 **5.** 50 **6.** 12 **7.** 16 **8.** 8 **9.** 7 **10.** 20 **11.** 12 **12.** 24 **The Numerator** **1.** 4 **2.** 2 **3.** 5 **4.** 1 **5.** 3 **6.** 11 **7.** 15 **8.** 32 **9.** 21 **10.** 45 **11.** 115 **12.** 492

SF18 **Across** **4.** three fifths **5.** two thirds **11.** four thirteenths **12.** one twelfth **13.** five sixths **Down** **1.** two sevenths **2.** eight tenths **3.** six elevenths **6.** one third **7.** three eighths **8.** one fourth **9.** four ninths **10.** one half

SF19 **2.a.** $\frac{1}{2}$ **b.** $\frac{1}{2}$ **3.a.** $\frac{3}{5}$ **b.** $\frac{3}{5}$ **4.a.** $\frac{5}{6}$ **b.** $\frac{1}{6}$ **5.a.** $\frac{3}{10}$ **b.** $\frac{1}{10}$ **6.a.** $\frac{1}{6}$ **b.** $\frac{1}{6}$ **7.a.** $\frac{4}{5}$ **b.** $\frac{1}{5}$ **8.a.** $\frac{6}{8}$ **b.** $\frac{2}{8}$ **9.a.** $\frac{3}{9}$ **b.** $\frac{6}{9}$ **10.a.** $\frac{1}{3}$ **b.** $\frac{2}{3}$ **11.a.** $\frac{3}{4}$ **b.** $\frac{1}{4}$ **12.a.** $\frac{28}{48}$ **b.** $\frac{20}{48}$ **13.a.** $\frac{4}{12}$ **b.** $\frac{8}{12}$ **14.a.** $\frac{5}{8}$ **b.** $\frac{3}{8}$

SF20 **1.a.** $\frac{5}{24}$ **b.** $\frac{19}{24}$ **2.a.** $\frac{1}{3}$ **b.** $\frac{2}{3}$ **3.a.** $\frac{4}{15}$ **b.** $\frac{11}{15}$ **4.a.** $\frac{22}{30}$ **b.** $\frac{8}{30}$ **5.a.** $\frac{12}{15}$ **b.** $\frac{3}{15}$ **6.a.** $\frac{7}{16}$ **b.** $\frac{9}{16}$

SF21 **A. 1.** $\frac{4}{6}$ **2.** $\frac{3}{7}$ **3.** $\frac{5}{21}$ **4.** $\frac{2}{9}$ **5.** $\frac{1}{17}$ **B. 1.** $\frac{1}{3}$ **2.** $\frac{2}{5}$ **3.** $\frac{1}{2}$ **4.** $\frac{3}{4}$ **5.** $\frac{5}{6}$ **C. 1.** $\frac{1}{3}$ **2.** $\frac{4}{10}$ **3.** $\frac{3}{4}$ **4.** $\frac{9}{25}$

Unit 3: Different Names for the Same Amount

Page 24 **1.a.** 2 **b.** 4 **c.** 8 **d.** 15 **e.** 27 **f.** 32 **2.a.** $\frac{3}{1}$ **b.** $\frac{10}{1}$ **c.** $\frac{7}{1}$ **d.** $\frac{25}{1}$ **e.** $\frac{469}{1}$ **f.** $\frac{8}{1}$ **3.a.** $1\frac{3}{4}$; $\frac{6}{4}$ **b.** $2\frac{4}{6}$; $\frac{16}{6}$ **c.** $1\frac{1}{3}$; $\frac{4}{3}$ **4.a.** $\frac{9}{12} = \frac{3}{4}$ **b.** $\frac{6}{8} = \frac{3}{4}$ **c.** $\frac{6}{10} = \frac{3}{5}$ **5.a.** whole **b.** equivalents **c.** proper **d.** mixed **e.** improper

SF22 **A. 2.** $\frac{6}{4}$ **3.** $\frac{3}{1}$ **4.** $\frac{4}{1}$ **5.** $\frac{4}{4}$ **6.** $\frac{5}{2}$ **B. 1.** $\frac{4}{6} = \frac{8}{12}$ **2.** $\frac{4}{4} = \frac{8}{8}$ **3.** $\frac{3}{8} = \frac{6}{10}$ **4.** $\frac{2}{4} = \frac{1}{2}$ **C.** (IF = improper fraction; MN = mixed number; PF = proper fraction; WN = whole number) **1.** IF **2.** MN **3.** IF **4.** PF **5.** WN **6.** PF **7.** MN **8.** IF

SF23 **A. 3.** $\frac{4}{4}$ **5.** $\frac{8}{8}$ **7.** $\frac{10}{10}$ **10.** $\frac{13}{13}$ **11.** $\frac{2}{2}$ **14.** $\frac{70}{70}$ **15.** $\frac{15}{15}$ **16.** $\frac{22}{22}$ **B. 2.** $\frac{6}{6}$ **3.** $\frac{7}{7}$ **4.** $\frac{13}{13}$ **5.** $\frac{24}{24}$ **6.** $\frac{18}{18}$ **7.** $\frac{32}{32}$ **8.** $\frac{32}{32}$

SF24 **Set A** **3.** $\frac{8}{8} = 1$ **4.** $\frac{6}{6} = 1$ **5.** $\frac{8}{1} = 8$ **6.** $\frac{5}{5} = 1$ **7.** $\frac{6}{1} = 6$ **8.** $\frac{5}{1} = 5$ **Set B** **2.** $\frac{60}{1}$; $\frac{60}{60}$ **3.** $\frac{12}{1}$; $\frac{12}{12}$ **4.** $\frac{2}{1}$; $\frac{2}{2}$ **5.** $\frac{100}{1}$; $\frac{100}{100}$ **6.** $\frac{13}{1}$; $\frac{13}{13}$

SF26 **1.** $\frac{3}{6}$; $\frac{6}{12}$ **2.** $\frac{2}{8}$; $\frac{3}{12}$ **3.** $\frac{3}{12}$ **4.** $\frac{2}{4}$; $\frac{3}{6}$; $\frac{4}{8}$; $\frac{6}{12}$ **5.** $\frac{4}{6}$; $\frac{8}{12}$ **6.** $\frac{1}{2}$; $\frac{3}{6}$; $\frac{4}{8}$; $\frac{6}{12}$ **7.** $\frac{1}{3}$; $\frac{4}{12}$ **8.** $\frac{1}{4}$; $\frac{3}{12}$ **9.** $\frac{1}{6}$ **10.** $\frac{6}{8}$; $\frac{9}{12}$ **11.** $\frac{1}{2}$; $\frac{2}{4}$; $\frac{4}{8}$; $\frac{6}{12}$ **12.** $\frac{1}{4}$; $\frac{2}{8}$ **13.** $\frac{2}{3}$; $\frac{8}{12}$ **14.** $\frac{1}{2}$; $\frac{2}{4}$; $\frac{3}{6}$; $\frac{6}{12}$ **15.** $\frac{1}{3}$; $\frac{2}{6}$ **16.** $\frac{10}{12}$ **17.** $\frac{3}{4}$; $\frac{9}{12}$ **18.** $\frac{1}{2}$; $\frac{2}{4}$; $\frac{3}{6}$; $\frac{4}{8}$ **19.** $\frac{2}{3}$; $\frac{4}{6}$ **20.** $\frac{3}{4}$; $\frac{6}{8}$ **21.** $\frac{5}{6}$

SF28 **Set A** **1.** MN **2.** PF **3.** IF **4.** PF **5.** WN **6.** IF **7.** MN **8.** IF **9.** PF **10.** PF **11.** IF **12.** IF **13.** PF **14.** IF **15.** WN **16.** IF **17.** PF **18.** PF **19.** IF **20.** IF

SF29 **A. 1.** $\frac{9}{9}$ **4.** $\frac{13}{13}$ **5.** $\frac{11}{11}$ **B. 1.** $\frac{10}{1}$ **2.** $\frac{3}{1}$ **3.** $\frac{42}{1}$ **4.** $\frac{16}{1}$ **5.** $\frac{768}{1}$ **6.** $\frac{1003}{1}$ **C. 1.** $2\frac{3}{4} = 1\frac{7}{4}$ **2.** $3\frac{3}{4} = 1\frac{5}{4}$ **3.** $5\frac{3}{8} = 2\frac{8}{8}$ **4.** $3\frac{7}{8} = 3\frac{1}{8}$ **D. 1.** e **2.** a **3.** b **4.** d **5.** c **F.** an improper fraction

Unit 4: Renaming Fractions

Page 34 **1.a.** $\frac{1}{2}$ **b.** $\frac{3}{4}$ **c.** $1\frac{1}{2}$ **d.** 4 **e.** $2\frac{1}{2}$ **f.** $\frac{1}{2}$ **g.** 1 **h.** $3\frac{1}{3}$ **i.** 6 **j.** $4\frac{1}{2}$ **k.** $3\frac{1}{2}$ **l.** $\frac{7}{12}$ **2.a.** 6 **b.** 10 **c.** 12 **d.** 14 **e.** 18 **f.** 24 **g.** 4 **h.** 6 **3.a.** $\frac{10}{15} = \frac{2}{3}$ **b.** $\frac{8}{16} = \frac{1}{2}$ **4.a.** rename **b.** raising **c.** reducing **d.** factor **e.** simplify **f.** simplest form

SF30 **Set B** **1.** 4 **2.** 15 **3.** 28 **4.** 20 **5.** 24 **6.** 15 **Set C** **1.** $\frac{5}{6}$ **2.** $\frac{1}{2}$ **3.** $\frac{2}{3}$ **4.** $\frac{3}{5}$ **5.** $\frac{1}{3}$ **6.** $\frac{1}{3}$ **7.** $\frac{5}{9}$ **8.** $\frac{1}{3}$ **9.** $\frac{4}{9}$ **10.** $\frac{7}{9}$ **Set D** **1.** $1\frac{1}{5}$ **2.** 8 **3.** 14 **4.** $8\frac{3}{4}$ **5.** $3\frac{4}{9}$ **6.** 1

SF31 **Set A** **2.** $\frac{3}{5} = \frac{6}{10}$ **3.** $\frac{2}{18} = \frac{1}{9}$ **4.** $\frac{1}{5} = \frac{2}{10}$ **5.** $\frac{4}{8} = \frac{1}{2}$ **6.** $\frac{3}{5} = \frac{6}{10}$ **7.** $\frac{3}{12} = \frac{1}{4}$ **8.** $\frac{3}{9} = \frac{1}{3}$ **9.** $\frac{1}{14} = \frac{2}{28}$ **10.** $\frac{5}{6} = \frac{10}{12}$ **11.** $\frac{7}{14} = \frac{1}{2}$ **Set B** **2.** $\frac{2}{3} = \frac{4}{6}$ **3.** $\frac{3}{10} = \frac{6}{20}$ **4.** $\frac{1}{4} = \frac{3}{8}$

SF34 **1.** 15 **2.** 5 **3.** 14 **4.** 20 **5.** 30 **6.** 12 **7.** 9 **8.** 24 **9.** 16 **10.** 3 **11.** 40 **12.** 21 **13.** 27 **14.** 25 **15.** 30 **16.** 6 **17.** 70 **18.** 90

SF35 **1.** $\frac{5}{6}$ **2.** $\frac{1}{2}$ **3.** $\frac{2}{3}$ **4.** $\frac{4}{5}$ **5.** $\frac{5}{7}$ **6.** $\frac{2}{3}$ **7.** $\frac{1}{5}$ **8.** $\frac{1}{2}$ **9.** $\frac{1}{2}$ **10.** $\frac{3}{4}$ **11.** $\frac{1}{8}$ **12.** $\frac{9}{10}$ **13.** $\frac{4}{9}$ **14.** $\frac{5}{9}$ **15.** $\frac{1}{4}$ **16.** $\frac{5}{11}$ **17.** $\frac{3}{8}$ **18.** $\frac{3}{7}$

SF37 **1.** 3 **2.** 8 **3.** $1\frac{1}{3}$ **4.** $1\frac{1}{4}$ **5.** $6\frac{2}{6}$ **6.** $3\frac{2}{3}$

SF38 **Practice Renaming Fractions 1** **1.** $\frac{1}{2}$ **2.** $\frac{2}{3}$ **3.** $1\frac{1}{2}$ **4.** 2 **5.** 1 **6.** 1 **7.** 16 **8.** 12 **9.** $3\frac{1}{2}$ **10.** $4\frac{2}{3}$ **Practice 2** **1.** $\frac{2}{3}$ **2.** $\frac{5}{6}$ **3.** $1\frac{3}{7}$ **4.** $\frac{1}{4}$ **5.** 1 **6.** 1 **7.** 9 **8.** 32 **9.** $8\frac{4}{5}$ **10.** $7\frac{1}{2}$ **Practice 3** **1.** $\frac{1}{2}$ **2.** $\frac{2}{3}$ **3.** $4\frac{1}{3}$ **4.** $1\frac{1}{2}$ **5.** 1 **6.** 1 **7.** 28 **8.** 145 **9.** $12\frac{3}{5}$ **10.** $14\frac{1}{3}$ **Practice 4** **1.** $\frac{3}{4}$ **2.** $\frac{5}{6}$ **3.** $\frac{7}{12}$ **4.** $1\frac{1}{7}$ **5.** $3\frac{7}{10}$ **6.** $4\frac{2}{3}$ **7.** 1 **8.** 121 **9.** $25\frac{11}{15}$ **10.** $38\frac{1}{6}$ **Practice 5** **1.** 4 **2.** $\frac{9}{13}$ **3.** $5\frac{3}{5}$ **4.** $3\frac{1}{3}$ **5.** 1 **6.** $18\frac{9}{10}$ **7.** 38 **8.** $\frac{1}{2}$ **9.** $\frac{2}{3}$ **10.** 178 **Practice 6** **1.** $31\frac{5}{14}$ **2.** $\frac{5}{9}$ **3.** 1 **4.** 143 **5.** 1 **6.** $\frac{64}{81}$ **7.** $3\frac{1}{2}$ **8.** $11\frac{5}{14}$ **9.** $\frac{1}{4}$ **10.** $8\frac{5}{12}$

SF39 **Set B** Correct terms are **1.** 12 **2.** 6 **3.** 10 **4.** 14 **5.** 6 **6.** 24 **7.** 27 **8.** 21 **Set C** **1.** $\frac{2}{3}$ **2.** $\frac{2}{3}$ **3.** $\frac{3}{4}$ **4.** $\frac{4}{5}$ **5.** $\frac{1}{3}$ **6.** $\frac{1}{2}$ **Set D** **1.** Change the proper fraction to a proper fraction at lowest terms ($\frac{1}{2}$). **2.** Change the improper fraction to a mixed number ($9\frac{3}{5}$). **3.** Change the mixed number to a mixed number at lowest terms ($14\frac{2}{3}$).

Unit 5: Comparing Fractions

Page 44 **1.a.** < **b.** > **c.** < **d.** > **e.** > **f.** < **2.a.** > **b.** < **c.** > **3.a.** $\frac{3}{20} < \frac{3}{15} < \frac{3}{8}$ **b.** $\frac{5}{16} < \frac{5}{9} < \frac{5}{6}$ **c.** $\frac{7}{16} < \frac{7}{12} < \frac{7}{8}$ **d.** $\frac{1}{9} < \frac{1}{4} < \frac{5}{9}$ **e.** $\frac{2}{5} < \frac{3}{5} < \frac{4}{5}$ **f.** $\frac{9}{16} < 1\frac{1}{16} < 1\frac{3}{16}$ **g.** $\frac{1}{4} < \frac{3}{10} < \frac{2}{5}$ **h.** $\frac{7}{12} < \frac{3}{4} < \frac{5}{6}$ **4.a.** smaller **b.** larger **c.** common

SF40 **Set A** 1. a 2. b 3. a 4. a 5. b 6. b 7. b 8. a 9. b **Set B** 1. 8 2. 24 3. 15 4. 45 5. 28 **Set C** 1. $\frac{3}{8} < \frac{3}{7} < \frac{3}{4}$ 2. $\frac{1}{5} < \frac{3}{5} < \frac{4}{5}$ 3. $\frac{2}{3} < \frac{3}{4} < \frac{5}{6}$ 4. $\frac{3}{9} < \frac{3}{7} < \frac{3}{3}$ 5. $\frac{1}{4} < \frac{1}{3} < \frac{1}{2}$ 6. $\frac{3}{8} < \frac{5}{8} < \frac{7}{8}$

SF41 **Set A** 2. > 3. < 4. > 5. < 6. < 7. > 8. > 9. < 10. < 11. > 12. < 13. > 14. > 15. > 16. > **Set C** 1. < 2. < 3. < 4. > 5. > 6. > 7. > 8. < 9. < 10. > 11. < 12. < 13. < 14. > 15. < 16. <

SF42 **A.** Tim's incorrect answers are 2., 6., 8. T. J.'s incorrect answer is 4. **B.** Tim's score is $\frac{7}{10}$; T. J.'s score is $\frac{9}{10}$. **C.** $\frac{7}{10} < \frac{9}{10}$

SF43 **Set A** 2. > ($\frac{6}{15} > \frac{5}{15}$) 3. > ($\frac{6}{10} > \frac{5}{10}$) 4. > ($\frac{21}{24} > \frac{16}{24}$) 5. < ($\frac{7}{42} < \frac{24}{42}$) 6. > ($\frac{28}{35} > \frac{15}{35}$) 7. < ($\frac{10}{55} < \frac{33}{55}$) **Set B** 1. < ($\frac{9}{15} < \frac{10}{15}$) 2. < ($\frac{3}{12} < \frac{10}{12}$) 3. > ($\frac{5}{10} > \frac{4}{10}$) 4. > ($\frac{14}{21} > \frac{9}{21}$) 5. > ($\frac{32}{36} > \frac{27}{36}$) 6. > ($\frac{9}{12} > \frac{7}{12}$) 7. > ($\frac{20}{30} > \frac{9}{30}$) **Set C** 1. < ($\frac{2}{9} < \frac{3}{9}$) 2. > ($\frac{9}{18} > \frac{8}{18}$) 3. < ($\frac{5}{40} < \frac{16}{40}$) 4. > ($\frac{4}{9} > \frac{3}{9}$) 5. < ($\frac{22}{77} < \frac{35}{77}$) 6. > ($\frac{25}{35} > \frac{21}{35}$) 7. > ($\frac{13}{26} > \frac{6}{26}$)

SF45 **Set A** 1. $\frac{1}{5} < \frac{2}{5} < \frac{3}{5}$ 2. $\frac{2}{8} < \frac{2}{5} < \frac{2}{3}$ 3. $\frac{1}{3} < \frac{1}{2} < \frac{3}{4}$ 4. $\frac{4}{9} < \frac{4}{7} < \frac{4}{5}$ 5. $\frac{1}{5} < \frac{1}{2} < \frac{3}{3}$ 6. $\frac{1}{7} < \frac{3}{7} < \frac{4}{7}$ 7. $\frac{3}{12} < \frac{7}{12} < \frac{11}{12}$ 8. $\frac{3}{10} < \frac{3}{7} < \frac{3}{4}$ 9. $\frac{1}{6} < \frac{3}{5} < \frac{2}{3}$ **Set B** 1. $\frac{5}{11} < \frac{5}{8} < \frac{5}{6}$ 2. $\frac{1}{5} < \frac{3}{5} < \frac{4}{5}$ 3. $\frac{1}{4} < \frac{5}{12} < \frac{2}{3}$ 4. $\frac{3}{10} < \frac{5}{10} < \frac{7}{10}$ 5. $\frac{1}{6} < \frac{3}{6} < \frac{5}{6}$ 6. $\frac{1}{3} < \frac{3}{6} < \frac{4}{6}$ 7. $\frac{2}{9} < \frac{3}{7} < \frac{2}{3}$ 8. $\frac{7}{20} < \frac{7}{12} < \frac{7}{8}$ 9. $\frac{3}{7} < \frac{1}{2} < \frac{3}{4}$ **Set C** 1. $\frac{2}{9} < \frac{1}{3} < \frac{5}{6}$ 2. $\frac{7}{15} < \frac{5}{9} < \frac{4}{5}$ 3. $\frac{8}{17} < \frac{11}{17} < \frac{15}{17}$ 4. $\frac{6}{21} < \frac{13}{21} < \frac{20}{21}$ 5. $\frac{15}{43} < \frac{15}{31} < \frac{15}{28}$ 6. $\frac{10}{51} < \frac{10}{41} < \frac{10}{31}$ 7. $\frac{41}{85} < \frac{41}{63} < \frac{41}{56}$ 8. $\frac{110}{121} < \frac{63}{121} < \frac{15}{121}$ 9. $\frac{5}{24} < \frac{3}{12} < \frac{7}{8}$

SF46 **A. 1.** When the denominators are the same, the larger fraction is the one with the larger denominator. **2.** When the denominators are different but the numerators are the same, the smaller fraction is the one with the larger denominator. **B. 1.** LCD = 35 **2.** $\frac{2}{5} = \frac{14}{35}$; $\frac{3}{7} = \frac{15}{35}$

Unit 6: Multiplying Fractions

Page 50 **1.a.** 2 **b.** $2\frac{2}{5}$ **c.** $1\frac{1}{3}$ **d.** $\frac{3}{1}$ **2.a.** $\frac{1}{5}$ **b.** $\frac{1}{9}$ **c.** $\frac{1}{14}$ **d.** $\frac{3}{35}$ **e.** $\frac{1}{4}$ **f.** $\frac{1}{12}$ **3.a.** $\frac{3}{4}$ **b.** $\frac{4}{9}$ **c.** $2\frac{2}{5}$ **d.** $1\frac{7}{8}$ **e.** $4\frac{4}{5}$ **f.** $2\frac{2}{3}$ **4.a.** denominators **b.** divide **c.** fraction **d.** simplify

SF47 **Set A** 1. $\frac{1}{6}$ 2. $\frac{3}{10}$ 3. $\frac{3}{28}$ 4. $\frac{1}{10}$ 5. $\frac{1}{2}$ 6. $\frac{1}{5}$ **Set B** 1. $\frac{2}{3}$ 2. $2\frac{1}{10}$ **Set C** 1. $\frac{3}{10}$ 2. $\frac{2}{9}$ 3. 1

SF48 **Practice 1** 1. $\frac{1}{4}$ 2. $\frac{5}{18}$ 3. $\frac{2}{3}$ 4. $\frac{5}{8}$ 5. $\frac{1}{10}$ 6. $\frac{5}{16}$ 7. $\frac{3}{10}$ 8. $\frac{3}{8}$ 9. $\frac{1}{3}$ 10. $\frac{2}{21}$ **Practice 2** 1. $\frac{3}{35}$ 2. $\frac{3}{16}$ 3. $\frac{5}{9}$ 4. $\frac{1}{16}$ 5. $\frac{7}{16}$ 6. $\frac{6}{25}$ 7. $\frac{8}{99}$ 8. $\frac{21}{80}$ 9. $\frac{3}{8}$ 10. $\frac{16}{27}$ **Practice 3** 1. $\frac{1}{6}$ 2. $\frac{1}{6}$ 3. $\frac{3}{8}$ 4. $\frac{9}{20}$ 5. $\frac{1}{24}$ 6. $\frac{3}{15}$ 7. $\frac{3}{14}$ 8. $\frac{1}{3}$ 9. $\frac{5}{12}$ 10. $\frac{1}{8}$ **Practice 4** 1. $\frac{1}{8}$ 2. $\frac{2}{9}$ 3. $\frac{4}{21}$ 4. $\frac{5}{16}$ 5. $\frac{10}{21}$ 6. $\frac{20}{33}$ 7. $\frac{32}{75}$ 8. $\frac{27}{70}$ 9. $\frac{15}{22}$ 10. $\frac{9}{70}$ **Practice 5** 1. $\frac{10}{21}$ 2. $\frac{1}{4}$ 3. $\frac{10}{21}$ 4. $\frac{3}{50}$ 5. $\frac{10}{39}$ 6. $\frac{10}{27}$ 7. $\frac{3}{8}$ 8. $\frac{8}{99}$ 9. $\frac{1}{5}$ 10. $\frac{3}{11}$ **Practice 6** 1. $\frac{8}{15}$ 2. $\frac{25}{42}$ 3. $\frac{1}{4}$ 4. $\frac{1}{9}$ 5. $\frac{16}{35}$ 6. $\frac{7}{44}$ 7. $\frac{16}{93}$ 8. $\frac{3}{16}$ 9. $\frac{1}{3}$ 10. $\frac{8}{15}$

SF49 **Practice 1** 1. $1\frac{1}{8}$ 2. $3\frac{1}{3}$ 3. $\frac{3}{8}$ 4. $1\frac{3}{5}$ 5. $1\frac{3}{5}$ 6. $1\frac{13}{16}$ 7. $2\frac{11}{12}$ 8. 1 9. $\frac{27}{35}$ 10. $2\frac{1}{2}$ **Practice 2** 1. 1 2. $\frac{3}{5}$ 3. $1\frac{5}{7}$ 4. $\frac{3}{4}$ 5. $1\frac{1}{3}$ 6. $1\frac{9}{25}$ 7. $\frac{7}{16}$ 8. $3\frac{3}{4}$ 9. $\frac{16}{63}$ 10. $4\frac{7}{12}$ **Practice 3** 1. $1\frac{1}{15}$ 2. $\frac{3}{4}$ 3. $3\frac{3}{5}$ 4. $2\frac{2}{3}$ 5. $\frac{17}{72}$ 6. $1\frac{1}{9}$ 7. $1\frac{3}{4}$ 8. $2\frac{1}{8}$ 9. 3 10. 5 **Practice 4** 1. $2\frac{13}{15}$ 2. $1\frac{7}{8}$ 3. $2\frac{1}{2}$ 4. $2\frac{5}{14}$ 5. 6 6. 15 7. $\frac{7}{9}$ 8. $1\frac{17}{28}$ 9. $5\frac{13}{36}$ 10. 21 **Practice 5** 1. 8 2. $7\frac{1}{2}$ 3. $2\frac{14}{15}$ 4. $\frac{26}{49}$ 5. 4 6. 15 7. $\frac{33}{80}$ 8. $5\frac{5}{8}$ 9. 5 10. $3\frac{3}{20}$ **Practice 6** 1. $5\frac{1}{4}$ 2. $4\frac{19}{32}$ 3. $2\frac{4}{9}$ 4. $6\frac{3}{4}$ 5. 48 6. $\frac{5}{8}$ 7. 42 8. $1\frac{1}{20}$ 9. $1\frac{10}{23}$ 10. $103\frac{1}{3}$

SF50 **Practice 1** 1. $\frac{2}{5}$ 2. $\frac{1}{4}$ 3. $\frac{1}{2}$ 4. $\frac{1}{4}$ 5. $\frac{1}{4}$ 6. $\frac{1}{6}$ 7. $\frac{3}{10}$ 8. $\frac{1}{14}$ 9. $\frac{4}{7}$ 10. $\frac{1}{3}$ **Practice 2** 1. $\frac{1}{3}$ 2. $\frac{1}{4}$ 3. $\frac{2}{5}$ 4. $\frac{3}{5}$ 5. $\frac{3}{8}$ 6. $\frac{5}{9}$ 7. $\frac{2}{9}$ 8. $\frac{1}{8}$ 9. $\frac{5}{7}$ 10. $\frac{4}{11}$ **Practice 3** 1. $\frac{3}{7}$ 2. $\frac{1}{10}$ 3. $\frac{4}{7}$ 4. $\frac{2}{13}$ 5. $\frac{1}{14}$ 6. $\frac{5}{16}$ 7. $\frac{5}{21}$ 8. $\frac{16}{21}$ 9. $\frac{5}{8}$ 10. $\frac{7}{12}$ **Practice 4** 1. $\frac{1}{4}$ 2. $\frac{1}{5}$ 3. $\frac{1}{2}$ 4. $\frac{1}{16}$ 5. $\frac{1}{3}$ 6. $\frac{1}{2}$ 7. $\frac{1}{4}$ 8. $\frac{1}{3}$ 9. $\frac{2}{9}$ 10. $\frac{1}{3}$ **Practice 5** 1. $\frac{3}{8}$ 2. $\frac{2}{3}$ 3. $\frac{1}{4}$ 4. $\frac{1}{6}$ 5. $\frac{3}{8}$ 6. $\frac{1}{8}$ 7. $\frac{3}{8}$ 8. $\frac{2}{5}$ 9. $\frac{2}{3}$ 10. $\frac{1}{6}$ **Practice 6** 1. $\frac{2}{7}$ 2. $\frac{2}{3}$ 3. $\frac{3}{5}$ 4. $\frac{1}{2}$ 5. $\frac{5}{12}$ 6. $\frac{7}{15}$ 7. $\frac{3}{10}$ 8. $\frac{1}{18}$ 9. $\frac{7}{20}$ 10. $\frac{2}{5}$

SF51 1. \$7 2. 2 3. $\frac{3}{8}$ lb. 4. $\frac{1}{4}$ lb. 5. $\frac{1}{2}$ yd. 6. $7\frac{1}{2}$ hrs.

Unit 7: Adding and Subtracting Fractions

Page 58 **1.a.** $\frac{3}{5}$ **b.** $1\frac{1}{4}$ **c.** $\frac{5}{6}$ **d.** $\frac{2}{3}$ **e.** $\frac{1}{5}$ **f.** $\frac{1}{5}$ **g.** $\frac{4}{9}$ **h.** $\frac{1}{3}$ **i.** $\frac{2}{3}$ **j.** $1\frac{1}{2}$ **k.** $1\frac{1}{12}$ **l.** $\frac{9}{10}$ **m.** $\frac{5}{8}$ **n.** $\frac{1}{2}$ **o.** $\frac{1}{10}$ **p.** $\frac{3}{20}$ **q.** $\frac{2}{3}$ **r.** $\frac{3}{5}$ **s.** $2\frac{4}{9}$ **t.** $6\frac{1}{2}$ **2.a.** like **b.** unlike **c.** numerators **d.** denominators **e.** rename **Bonus Work** 1. $\frac{6}{10}$ 2. $\frac{1}{4}$

SF53 **Set A** 1. $\frac{7}{9}$ 2. $\frac{5}{9}$ 3. $\frac{5}{78}$ 4. $\frac{4}{5}$ 5. $\frac{9}{20}$ 6. $3\frac{2}{9}$ **Set B** 1. $\frac{1}{2}$ 2. $\frac{1}{20}$ 3. $2\frac{5}{8}$ 4. $\frac{4}{9}$ 5. $\frac{1}{4}$ 6. $\frac{3}{4}$

SF54 **Set A** 1. $\frac{3}{5}$ 2. $\frac{2}{3}$ 3. 1 4. $\frac{1}{35}$ 5. $1\frac{1}{2}$ 6. 2 7. $1\frac{1}{2}$ 8. $1\frac{9}{10}$ 9. $1\frac{1}{4}$ **Set B** 1. $\frac{1}{3}$ 2. $\frac{1}{2}$ 3. $\frac{1}{2}$ 4. $\frac{4}{7}$ 5. $\frac{1}{4}$ 6. $\frac{13}{50}$ 7. $\frac{3}{5}$ 8. $\frac{1}{5}$ 9. $\frac{23}{50}$

SF56 1. $5\frac{1}{3}$ 2. $7\frac{1}{5}$ 3. $2\frac{2}{9}$ 4. $\frac{1}{3}$ 5. $\frac{4}{7}$ 6. $\frac{5}{9}$ 7. $1\frac{7}{10}$ 8. $6\frac{1}{12}$ 9. $8\frac{1}{6}$ 10. $6\frac{8}{15}$ 11. $4\frac{11}{16}$ 12. $5\frac{1}{6}$

SF57 1. $1\frac{1}{4}$ 2. $\frac{8}{15}$ 3. $\frac{5}{12}$ 4. $\frac{5}{6}$ 5. $4\frac{3}{8}$ 6. $\frac{7}{8}$

Unit 8: Dividing Fractions

Page 63 **1.a.** $\frac{4}{3}$ **b.** $\frac{3}{2}$ **c.** $\frac{8}{3}$ **d.** $\frac{1}{2}$ **e.** $\frac{1}{7}$ **f.** $\frac{1}{5}$ **2.a.** $\frac{2}{5} \times \frac{8}{7}$ **b.** $\frac{7}{9} \times \frac{7}{3}$ **c.** $\frac{3}{5} \times \frac{8}{5}$ **d.** $\frac{4}{7} \times \frac{1}{3}$ **e.** $\frac{3}{4} \times \frac{1}{6}$ **f.** $\frac{5}{6} \times \frac{1}{4}$ **3.a.** $\frac{6}{7}$ **b.** $\frac{5}{6}$ **c.** $\frac{15}{16}$ **d.** $\frac{8}{15}$ **e.** $\frac{5}{24}$ **f.** $\frac{1}{7}$ **g.** 5 **h.** 10 **4.a.** divisor **b.** upside **c.** fraction **d.** multiply **e.** mixed

SF59 1. $1\frac{1}{4}$ 2. $1\frac{11}{16}$ 3. $\frac{8}{9}$ 4. $\frac{5}{48}$ 5. $\frac{6}{25}$ 6. $9\frac{1}{3}$ 7. 2 8. 8

SF60 **Practice 1** 1. $1\frac{1}{3}$ 2. $1\frac{1}{2}$ 3. $1\frac{1}{2}$ 4. $1\frac{1}{5}$ 5. $\frac{8}{15}$ 6. $\frac{1}{2}$ 7. $\frac{4}{5}$ 8. $\frac{5}{8}$ 9. $\frac{10}{21}$ 10. $\frac{9}{10}$ **Practice 2** 1. $1\frac{2}{3}$ 2. $1\frac{1}{20}$ 3. 4 4. $2\frac{2}{5}$ 5. $1\frac{1}{4}$ 6. $1\frac{1}{3}$ 7. 6 8. $\frac{16}{63}$ 9. $2\frac{2}{9}$ 10. $2\frac{3}{15}$ **Practice 3** 1. 4 2. $\frac{5}{6}$ 3. $1\frac{1}{4}$ 4. $\frac{7}{8}$ 5. $1\frac{1}{2}$ 6. $\frac{2}{3}$ 7. $1\frac{1}{3}$ 8. $2\frac{1}{4}$ 9. 5 10. $2\frac{1}{2}$ **Practice 4** 1. $1\frac{19}{21}$ 2. $1\frac{1}{5}$ 3. $\frac{2}{3}$ 4. $\frac{27}{50}$ 5. $1\frac{1}{10}$ 6. 5 7. $12\frac{3}{5}$ 8. 1 9. 1 10. $1\frac{1}{7}$ **Practice 5** 1. $1\frac{1}{2}$ 2. $\frac{3}{5}$ 3. $1\frac{13}{32}$ 4. 2 5. 1 6. 1 7. $\frac{1}{4}$ 8. 1 9. $1\frac{1}{7}$ 10. $1\frac{1}{4}$ **Practice 6** 1. $1\frac{1}{5}$ 2. $1\frac{3}{15}$ 3. $1\frac{17}{60}$ 4. $\frac{25}{56}$ 5. $1\frac{1}{5}$ 6. $1\frac{2}{9}$ 7. $1\frac{57}{160}$ 8. $\frac{9}{16}$ 9. $\frac{289}{496}$ 10. $\frac{17}{122}$

SF61 **By Whole Numbers** 1. $\frac{2}{9}$ 2. $\frac{5}{48}$ 3. $\frac{3}{70}$ 4. $\frac{1}{49}$ 5. $\frac{1}{80}$ 6. $\frac{5}{372}$ **By Mixed Numbers** 1. $\frac{1}{10}$ 2. $\frac{1}{26}$ 3. $\frac{5}{114}$ 4. $\frac{3}{161}$ 5. $\frac{7}{194}$ 6. $\frac{12}{115}$

SF62 1. 4 2. 15 3. 8 4. $\frac{1}{16}$ gal. 5. 2 6. 6

Review

SF64 **Set A** 1. $1\frac{1}{24}$ 2. $\frac{3}{5}$ 3. $\frac{5}{12}$ 4. $\frac{9}{16}$ 5. $\frac{11}{24}$ 6. $\frac{6}{7}$ 7. $3\frac{10}{21}$ 8. $1\frac{1}{20}$ 9. $5\frac{1}{4}$ 10. $\frac{16}{25}$ 11. $1\frac{2}{3}$ 12. $\frac{1}{27}$ **Set B** 1. 1 2. $\frac{3}{5}$ 3. $\frac{6}{7}$ 4. $1\frac{5}{8}$ 5. 8 6. $4\frac{1}{4}$ 7. $\frac{15}{16}$ 8. $\frac{1}{18}$ 9. $2\frac{3}{5}$ 10. $1\frac{1}{2}$ 11. $10\frac{9}{10}$ 12. $9\frac{13}{15}$ 13. $\frac{1}{4}$ 14. $6\frac{3}{10}$ 15. $33\frac{3}{20}$ **Set C** 1. \$7.50 2. $1\frac{1}{2}$ lb. 3. $8\frac{1}{4}$ mi. 4. 8

Name: _____

Period: _____

Simple Fractions

Student's Record of Achievement

Unit	Lesson Title	Page	Skill Learned	Mark	Date

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☆ AWARD OF EXCELLENCE ☆

presented to

Congratulations!

You have successfully accomplished one or more of these important goals:

☐ Learned this skill:

_____

_____

☐ Finished this task:

_____

_____

☐ Taught this skill to another person:

_____

_____

Signed: _____

_____

Date: _____

Simple Fractions

SF 10

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 1: Fractions All Around You

A. Put an **X** next to each number that's a fraction.

_____ 1. $\frac{1}{8}$ _____ 5. $\frac{3}{4}$

_____ 2. 592 _____ 6. $\frac{8}{8}$

_____ 3. $\frac{5}{2}$ _____ 7. 1

_____ 4. $\frac{66}{1}$ _____ 8. 1,010

B. Which is a whole thing? A whole group? Write **thing** or **group.**

_____ 1. a class of 25 students

_____ 2. a set of 4 tires

_____ 3. a glass of milk

_____ 4. a soccer team

_____ 5. a ruler

_____ 6. a family

_____ 7. a carton of eggs

_____ 8. a hamburger

_____ 9. a box of 6 pens

_____ 10. a can of juice

C. What are some other examples of:

1. one whole thing?

_____

_____

_____

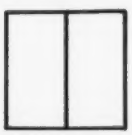
2. one whole group?

_____

_____

_____

D. How many equal parts does each shape have?

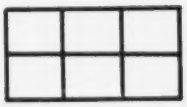
_____ 1. 

_____ 4.

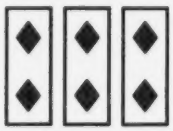
_____ 2.

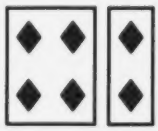
_____ 5.

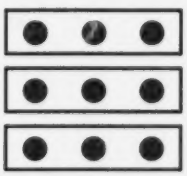
_____ 3.

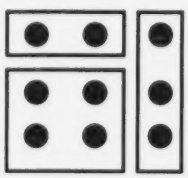
_____ 6. 

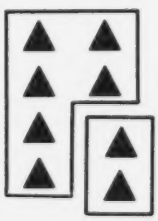
E. Circle each group that is divided into equal parts.

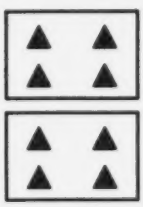
1. 

4. 

2. 

5. 

3. 

6. 

Score:

_____ no. right

_____ no. wrong

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Subject: _____ Name: _____

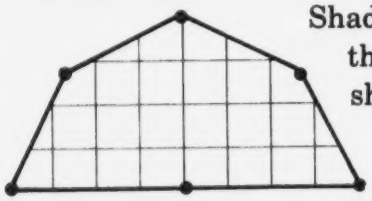
Period: _____ Date: _____

A Fraction of a Whole Thing or Whole Group

Set A

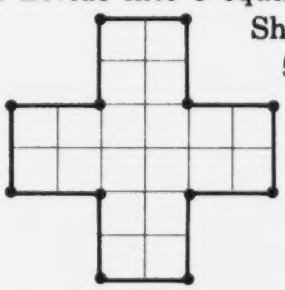
Draw lines to divide each shape into equal parts. (Use a ruler.) Then shade a fraction of each shape.

1. Divide into 4 equal parts.



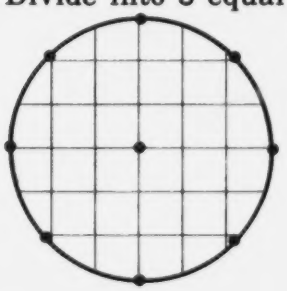
Shade 1 of the 4 to show $\frac{1}{4}$.

2. Divide into 5 equal parts.



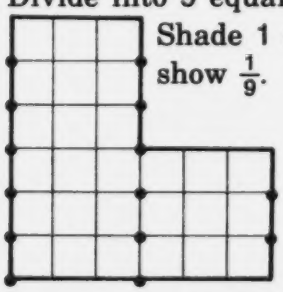
Shade 3 of the 5 to show $\frac{3}{5}$.

3. Divide into 8 equal parts.



Shade 5 of the 8 to show $\frac{5}{8}$.

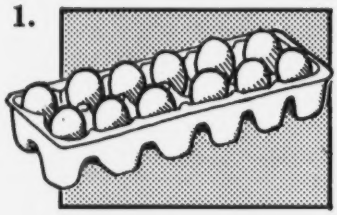
4. Divide into 9 equal parts.



Shade 1 of the 9 to show $\frac{1}{9}$.

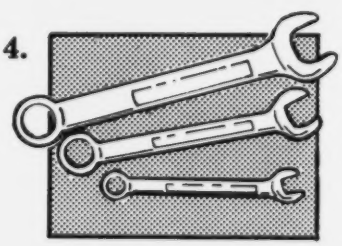
Set B

These groups are made up of different numbers of things or people. Draw a line from each group to the sentences that describe that group. Then shade in a fraction of that group.

1. 

2.

3.

4. 

5.

a. This group is made up of 6 things or persons. Shade 1 of the 6 to show $\frac{1}{6}$.

b. This group is made up of 3 things or persons. Shade 2 of the 3 to show $\frac{2}{3}$.

c. This group is made up of 12 things or persons. Shade 7 of the 12 to show $\frac{7}{12}$.

d. This group is made up of 2 things or persons. Shade 1 of the 2 to show $\frac{1}{2}$.

e. This group is made up of 5 things or persons. Shade 2 of the 5 to show $\frac{2}{5}$.

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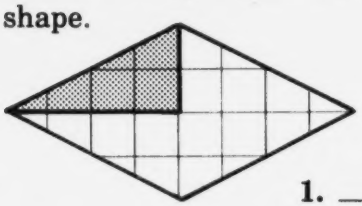
Subject: _____ Name: _____

Period: _____ Date: _____

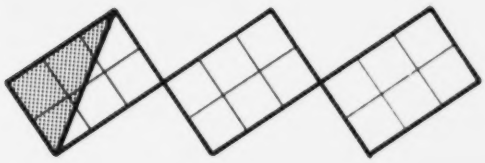
Equal Parts of a Whole Thing or Whole Group

Set A

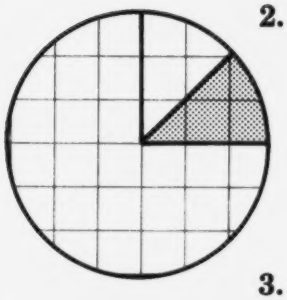
Finish dividing each whole shape into these equal parts. Then write the number of equal parts you get in each shape.



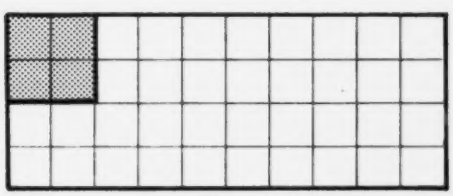
1. _____ equal parts



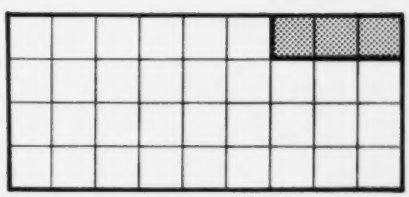
2. _____ equal parts



3. _____ equal parts



4. _____ equal parts



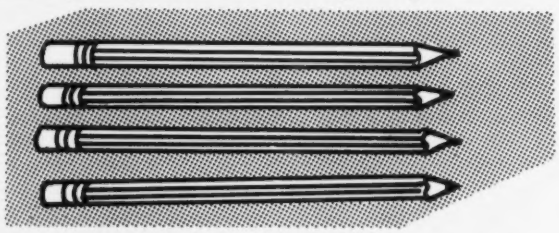
5. _____ equal parts

Set B

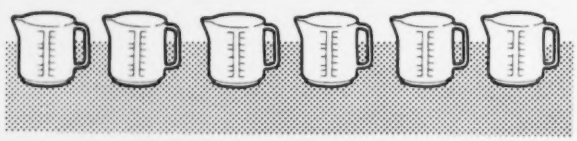
How many equal parts make up each group?

1. This group has _____ equal parts.

2. This group has _____ equal parts.



3. This group has _____ equal parts.



4. One dollar ($1.00) has these many equal parts:

   a. _____ pennies

   b. _____ nickels

   c. _____ dimes

   d. _____ quarters

   e. _____ half dollars

5. One hour has these many equal parts:

   a. _____ minutes

   b. _____ seconds

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Subject: _____ Name: _____

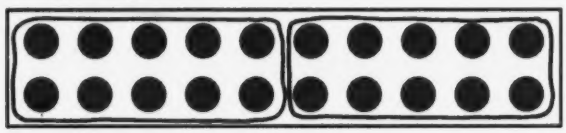
Period: _____ Date: _____

Dividing Groups into Equal Parts

Set A

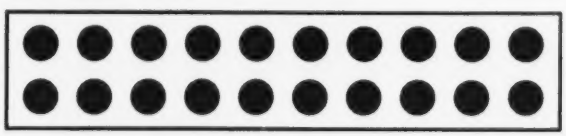
Divide these groups into equal parts. Draw circles around each part. Then write the number of shapes in each equal part. (One is started.)

1. 2 equal parts



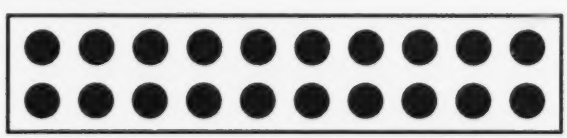
_____ shapes in each part

2. 4 equal parts



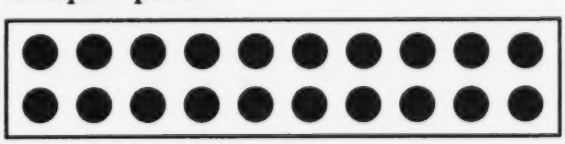
_____ shapes in each part

3. 5 equal parts



_____ shapes in each part

4. 10 equal parts



_____ shapes in each part

Set B

In the box, draw a group of 10, 12, 14, or more shapes. Then answer the questions.

1. How many shapes did you choose to make up the group?

   _____ shapes in all

2. How many different equal parts can you divide the group into? How many shapes are in each part?

   a. _____ equal parts

      _____ shapes in each part

   b. _____ equal parts

      _____ shapes in each part

   c. _____ equal parts

      _____ shapes in each part

   d. _____ equal parts

      _____ shapes in each part

   e. _____ equal parts

      _____ shapes in each part

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 1: Fraction Check

A. Write examples of whole things. Then write examples of whole groups.

1. A Whole Thing

a. _____

b. _____

c. _____

d. _____

2. A Whole Group

a. _____

b. _____

c. _____

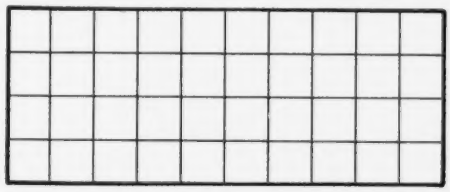
d. _____

B. These sentences are about parts of a whole group. Finish writing them. (One is done.)

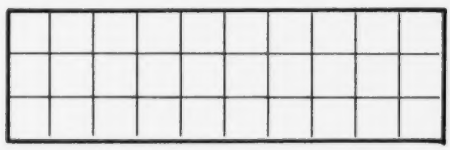
1. One inch is 1 of 12 inches on a ruler.
2. One egg is 1 of _____ eggs in a dozen.
3. One foot is 1 of _____ feet in a yard.
4. Two quarters are 2 of _____ quarters in a dollar.
5. Five pennies are 5 of _____ pennies in a dime.
6. Four nickels are 4 of _____ nickels in a quarter.
7. Thirty minutes are 30 of _____ minutes in an hour.

C. Divide these shapes into equal parts. Use a ruler.

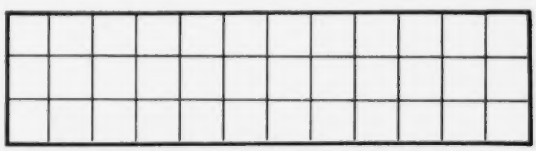
1. 4 equal parts



2. 5 equal parts



3. 9 equal parts



D. Suppose you divide this group of stars into these equal parts. How many stars would be in each part?

1. 2 equal parts

   _____ stars in each part

2. 3 equal parts

   _____ stars in each part

3. 4 equal parts

   _____ stars in each part

4. 6 equal parts

   _____ stars in each part

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 2: Naming Fractions

A. Answer the questions about this fraction.

$\frac{2}{3}$

1. Which number is the numerator?

_____

2. Which number is the denominator?

_____

3. What does the denominator tell you about the whole amount?

_____

4. What does the numerator tell you about the parts of the amount?

_____

_____

B. Draw a line from each fraction to the way you'd read and say it.

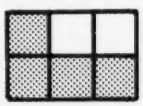
1. $\frac{1}{4}$	a. one fourth
2. $\frac{1}{5}$	b. one half
3. $\frac{1}{3}$	c. one sixth
4. $\frac{1}{2}$	d. one fifth
5. $\frac{1}{8}$	e. one third
6. $\frac{1}{6}$	f. one eighth

Score:

_____ no. right

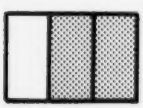
_____ no. wrong

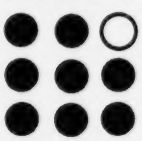
C. Write a fraction that shows how much of each shape or group is shaded.

1.  = _____

2. = _____

3. = _____

4.  = _____

5.  = _____

D. Read the word problems. Name the terms of the fraction for each problem.

1. Joe takes a test that has 8 questions. He gets 7 questions right. What fraction of the test does Joe get right?

   Joe gets _____ of the test right.

2. Maya works at a job that is 3 miles from her house. She walks 1 mile to a bus stop, then rides the rest of the way on a bus. What fraction of the distance does she walk?

   Maya walks _____ of the distance.

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Subject: _____ Name: _____

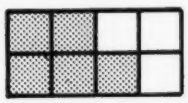
Period: _____ Date: _____

The Parts of a Fraction

The Denominator

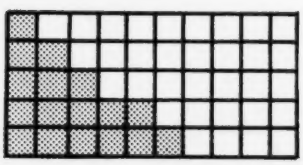
Finish writing the denominators of these fractions. (The first is done.)

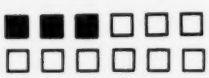
1. = $\frac{3}{4}$

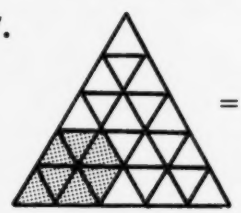
2.  = $\frac{5}{\ }$

3. = $\frac{4}{\ }$

4. = $\frac{10}{\ }$

5.  = $\frac{17}{\ }$

6.  = $\frac{3}{\ }$

7.  = $\frac{7}{\ }$

8. 3 hours out of 8 hours = $\frac{3}{\ }$

9. 2 gallons out of 7 gallons = $\frac{2}{\ }$

10. 8 girls out of 20 students = $\frac{8}{\ }$

11. 11 months out of a year = $\frac{11}{\ }$

12. 18 eggs out of 2 dozen = $\frac{18}{\ }$

The Numerator

Finish writing the numerators of these fractions.

1. = $\frac{\ }{5}$

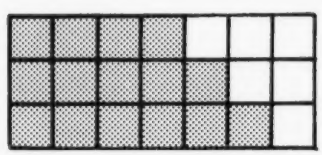
2. = $\frac{\ }{3}$

3. = $\frac{\ }{7}$

4. = $\frac{\ }{2}$

5. = $\frac{\ }{10}$

6. = $\frac{\ }{12}$

7.  = $\frac{\ }{21}$

8. 32 states out of 50 states = $\frac{\ }{50}$

9. 21 miles out of 82 miles = $\frac{\ }{82}$

10. 45 minutes out of an hour = $\frac{\ }{60}$

11. 115 pages out of 140 pages = $\frac{\ }{140}$

12. 492 children out of 915 people = $\frac{\ }{915}$

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Period: _____ Date: _____

Fraction Crossword

Say these fractions out loud. Then write them in the puzzle. (One is done.)

Across

4. $\frac{3}{5}$ **12.** $\frac{1}{12}$

5. $\frac{2}{3}$ **13.** $\frac{5}{6}$

11. $\frac{4}{13}$

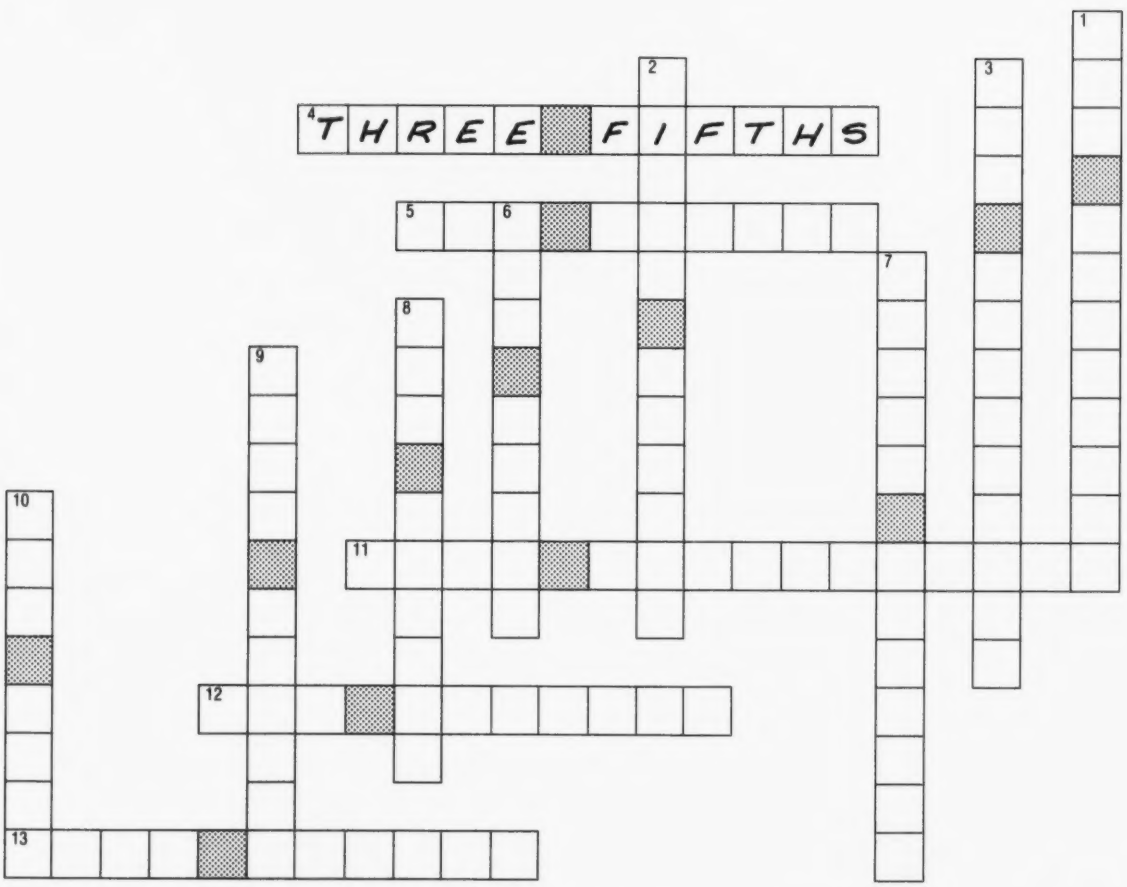
Down

1. $\frac{2}{7}$ **7.** $\frac{3}{8}$

2. $\frac{8}{10}$ **8.** $\frac{1}{4}$

3. $\frac{6}{11}$ **9.** $\frac{4}{9}$

6. $\frac{1}{3}$ **10.** $\frac{1}{2}$



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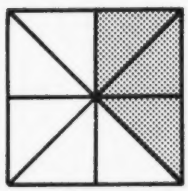
What's the Fraction?

Write fractions for each whole thing or whole group:

a. First write a fraction that shows how many parts are shaded.

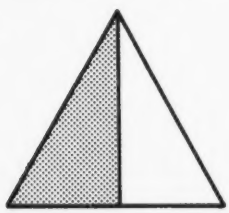
b. Then write a fraction that shows how many parts are *not* shaded.

1.



a. $\frac{3}{8}$ b. $\frac{5}{8}$

2.



a. ____ b. ____

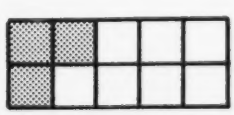
3.

a. ____ b. ____

4.

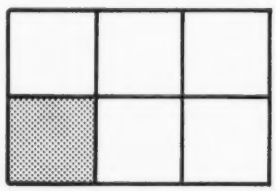
a. ____ b. ____

5.



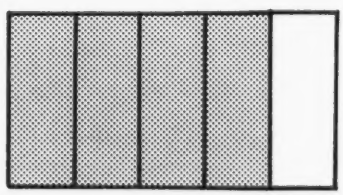
a. ____ b. ____

6.



a. ____ b. ____

7.

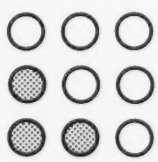


a. ____ b. ____

8.

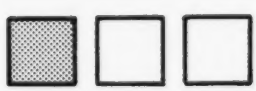
a. ____ b. ____

9.



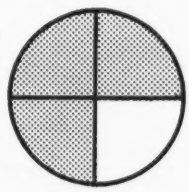
a. ____ b. ____

10.



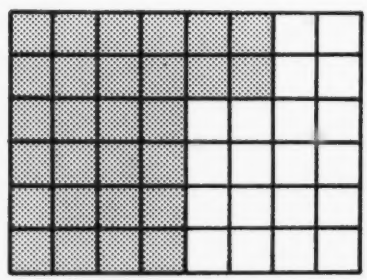
a. ____ b. ____

11.



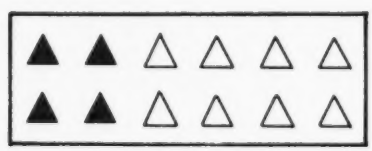
a. ____ b. ____

12.



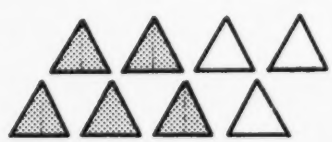
a. ____ b. ____

13.



a. ____ b. ____

14.



a. ____ b. ____

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Period: _____ Date: _____

Find the Fractions

Read each word problem. Then answer the questions.

1. Rick buys a case of car oil. The case holds 24 cans of oil. Rick puts 5 cans of oil in his car.
   a. What fraction of the case does he use?

      Rick uses _____ of the case.
   b. What fraction of the case is left?

      _____ of the case is left.

2. Five members of a band share the money they earn equally.
   a. What fraction of the money goes to one member?

      One member gets _____ of the money.
   b. What fraction of the money goes to three members?

      Three members get _____ of the money.

3. Nina buys 4 crumb doughnuts, 5 chocolate doughnuts, and 6 sugar doughnuts.
   a. What fraction of the total are crumb doughnuts?

      _____ are crumb doughnuts.
   b. What fraction are *not* crumb doughnuts?

      _____ are *not* crumb doughnuts.

4. Ralph takes a math test. He answers 30 questions altogether. He gets 22 questions right.
   a. What fraction does he get right?

      Ralph gets _____ of the questions right.
   b. What fraction does Ralph get wrong?

      Ralph gets _____ of the questions wrong.

5. A baseball team has 15 players. 12 of the players are right handed. The rest of them are left handed.
   a. What fraction of the team is right handed?

      _____ of the team is right handed.
   b. What fraction of the team is left handed?

      _____ of the team is left handed.

6. Business is slow at Mrs. Wong's Market. She has to lay off 7 of her 16 workers.
   a. What fraction of Mrs. Wong's workers lose their jobs?

      _____ of the workers lose their jobs.
   b. What fraction of the workers keep their jobs?

      _____ of the workers keep their jobs.

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Period: _____ Date: _____

Unit 2: Fraction Check

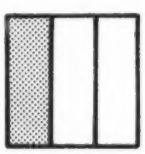
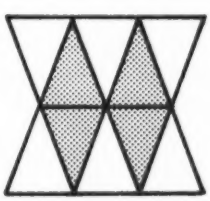
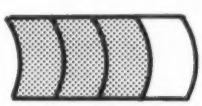
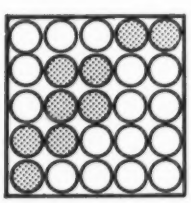
A. Write fractions using these numerators and denominators.

1. numerator 4, denominator 6 _____
2. numerator 3, denominator 7 _____
3. denominator 21, numerator 5 _____
4. numerator 2, denominator 9 _____
5. denominator 17, numerator 1 _____

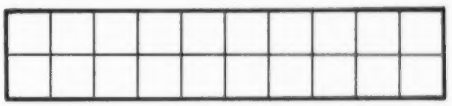
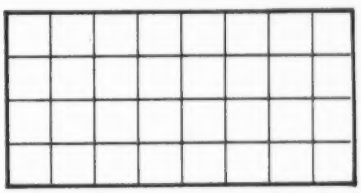
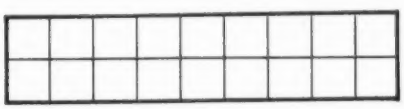
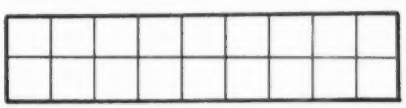
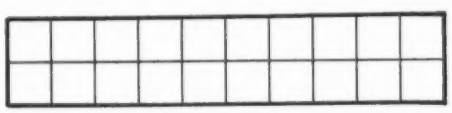
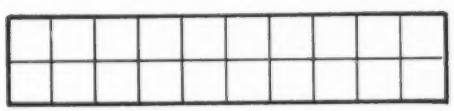
B. Write these fractions with numbers.

1. one third _____
2. two fifths _____
3. one half _____
4. three fourths _____
5. five sixths _____

C. A fraction of each shape is shaded. Write that fraction.

1.  _____
2.  _____
3.  _____
4.  _____

D. Use these shapes to show what these fractions look like. Divide each shape into equal parts. Then shade a fraction of each shape.

1. $\frac{3}{5}$ 
2. $\frac{1}{8}$ 
3. $\frac{2}{3}$ 
4. $\frac{7}{9}$ 
5. $\frac{2}{10}$ 
6. $\frac{5}{11}$ 

E. On the back of this paper, write word problems about these fractions.

1. $\frac{5}{9}$ of the members on a baseball team
2. $\frac{6}{7}$ of the days in a week
3. $\frac{3}{10}$ of a mile
4. $\frac{3}{8}$ of the units in a math book
5. $\frac{11}{20}$ of the boys in a school band

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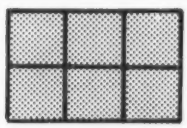
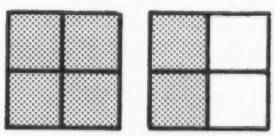
Period: _____ Date: _____

Unit 3: Different Names for the Same Amount

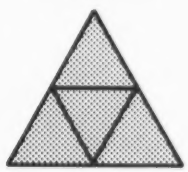
A. Write fractions that are equal to these amounts.
(One is done.)

1.  = 1 = $\frac{6}{6}$

2.  = $1\frac{2}{4}$ = _____

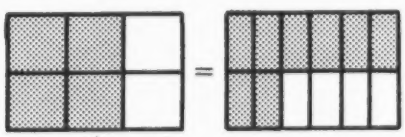
3. = 3 = _____

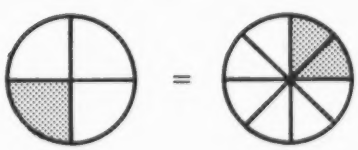
4. = 4 = _____

5.  = 1 = _____

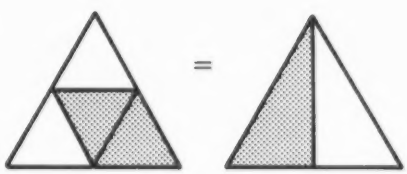
6. = $2\frac{1}{2}$ = _____

B. Write equivalent fractions for each set.
(One is started.)

1. 
$\frac{4}{6}$ = _____

2. 
_____ = _____

3.
_____ = _____

4. 
_____ = _____

C. What kind of numbers are these? Write **proper fraction, improper fraction, whole number,** or **mixed number.**

1. $\frac{6}{5}$ _____
2. $2\frac{2}{3}$ _____
3. $\frac{4}{4}$ _____
4. $\frac{1}{11}$ _____
5. 7 _____
6. $\frac{2}{3}$ _____
7. $8\frac{6}{7}$ _____
8. $\frac{23}{4}$ _____

Score: _____ no. right _____ no. wrong

SF22

Pre-post test/***SIMPLE FRACTIONS***, Unit 3, pp. 18–24.

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Period: _____ Date: _____

Fractions That Equal 1

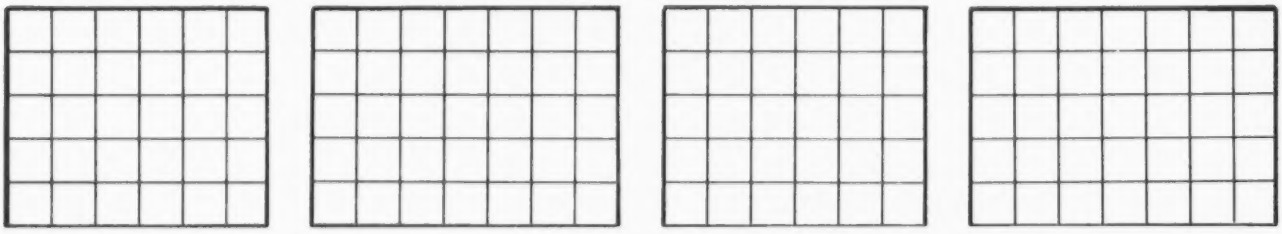
A. Put an **X** in front of the fractions that equal 1.

_____ **1.** $\frac{1}{2}$	_____ **5.** $\frac{8}{8}$	_____ **9.** $\frac{3}{5}$	_____ **13.** $\frac{7}{10}$
_____ **2.** $\frac{2}{3}$	_____ **6.** $\frac{3}{8}$	_____ **10.** $\frac{13}{13}$	_____ **14.** $\frac{70}{70}$
_____ **3.** $\frac{4}{4}$	_____ **7.** $\frac{10}{10}$	_____ **11.** $\frac{2}{2}$	_____ **15.** $\frac{15}{15}$
_____ **4.** $\frac{6}{5}$	_____ **8.** $\frac{1}{4}$	_____ **12.** $\frac{4}{9}$	_____ **16.** $\frac{22}{22}$

B. A numerator or denominator for each fraction is given. Write each fraction so it equals 1. (One is done.)

1. denominator 2	$\frac{2}{2} = 1$	**5.** numerator 24	_____ = 1
2. denominator 5	_____ = 1	**6.** numerator 18	_____ = 1
3. numerator 7	_____ = 1	**7.** numerator 32	_____ = 1
4. denominator 13	_____ = 1	**8.** denominator 32	_____ = 1

C. Write different fractions that equal 1. Then, using the shapes, show those fractions. Divide the shapes into the correct equal parts.



1. _____ = 1 **2.** _____ = 1 **3.** _____ = 1 **4.** _____ = 1

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Period: _____ Date: _____

Fractions That Equal 1 or More Than 1

Set A

Write fractions for each 1 whole thing or many whole things. Also write what each fraction stands for. (Two are done.)

1.

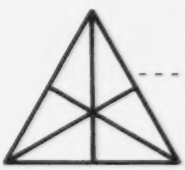
$\frac{2}{2}$ = 1

2.

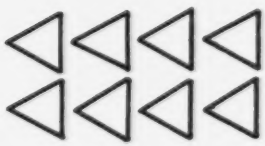
$\frac{2}{1}$ = 2

3.

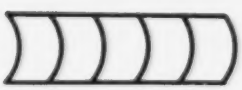
_____ = _____

4. 

_____ = _____

5. 

_____ = _____

6. 

_____ = _____

7.

_____ = _____

8.

_____ = _____

Set B

Write fractions that equal these amounts. (One is done.)

1. Days in a week

$\frac{7}{1}$ = 7 days

$\frac{7}{7}$ = 1 week (7 days)

2. Minutes in an hour

_____ = 60 minutes

_____ = 1 hour (60 minutes)

3. Months in a year

_____ = 12 months

_____ = 1 year (12 months)

4. Cups in a pint

_____ = 2 cups

_____ = 1 pint (2 cups)

5. Number of pennies in a dollar

_____ = _____ pennies

_____ = 1 dollar (_____ pennies)

6. Number of inches in a foot

_____ = _____ inches

_____ = 1 foot (_____ inches)

Bonus: On another sheet of paper, draw shapes that show these fractions: $\frac{5}{1}$, $\frac{5}{5}$, $\frac{12}{1}$, $\frac{12}{12}$, $\frac{6}{1}$, $\frac{6}{6}$, $\frac{10}{1}$, $\frac{10}{10}$.

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Subject: _____ Name: _____

Period: _____ Date: _____

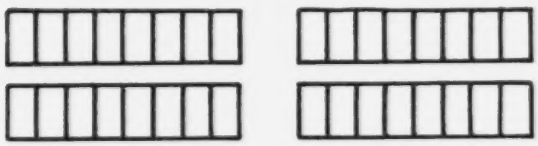
Mixed Numbers as Fractions

Set A

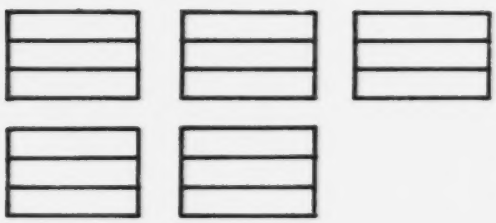
Write mixed numbers for these shapes. Then write their equivalent fractions.

1.

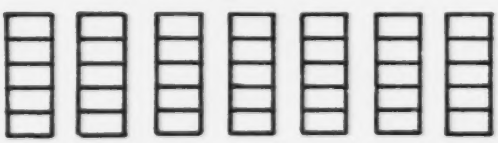
mixed number _____ = _____ fraction

2. 

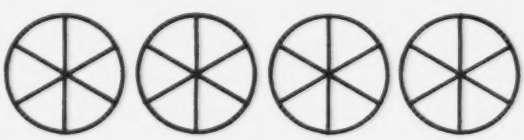
mixed number _____ = _____ fraction

3. 

mixed number _____ = _____ fraction

4. 

mixed number _____ = _____ fraction

5. 

mixed number _____ = _____ fraction

Set B

Make up mixed numbers by shading certain parts of these shapes. Then write the mixed number. Next, write a fraction that is equivalent to the mixed number.

1.

mixed number _____ = _____ fraction

2.

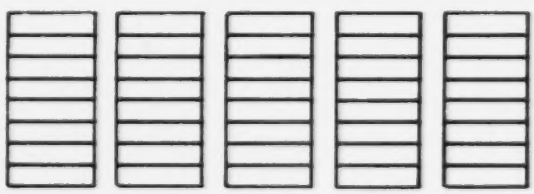
mixed number _____ = _____ fraction

3.

mixed number _____ = _____ fraction

4.

mixed number _____ = _____ fraction

5. 

mixed number _____ = _____ fraction

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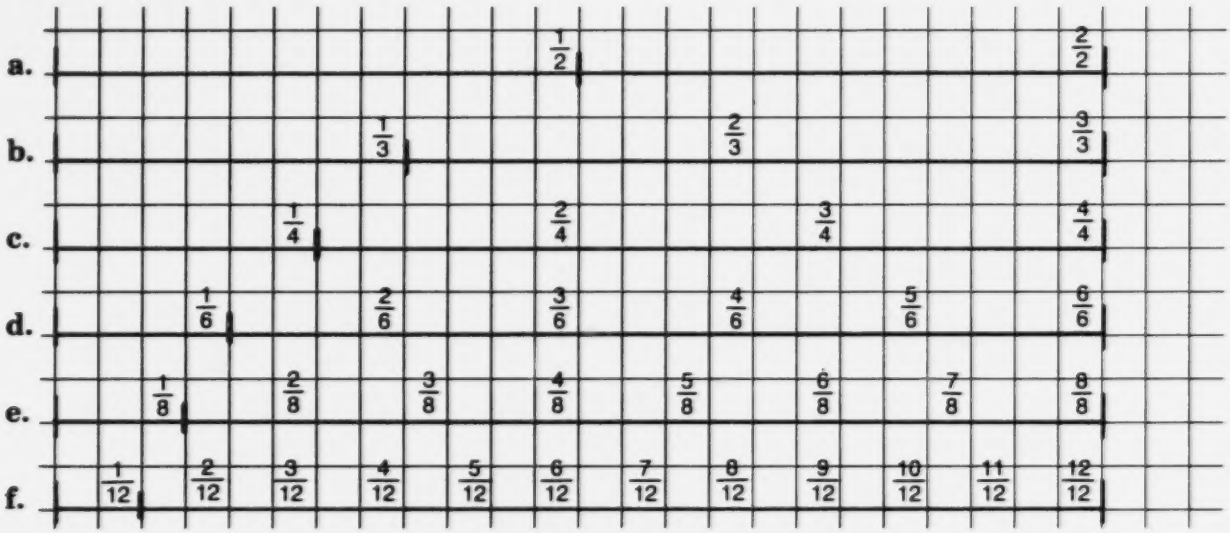
Note to the teacher: Shade in the shapes of Set A for the student. This WorkMaster can be used repeatedly.

Subject: _____ Name: _____

Period: _____ Date: _____

Equivalent Fractions

Finish these number lines to show equivalent fractions. Draw markers that divide each line into equal parts. (Each one is started.)



Here's how to use the number lines. Place a ruler next to the marker for a fraction. See what other markers line up next to the ruler. Those markers show equivalent fractions.

What are the equivalent fractions of these fractions?

1. $\frac{1}{3}$ = $\frac{2}{6}$ = $\frac{4}{12}$

2. $\frac{1}{4}$ = _____ = _____

3. $\frac{1}{6}$ = _____

4. $\frac{1}{2}$ = _____ = _____ = _____ = _____

5. $\frac{2}{3}$ = _____ = _____

6. $\frac{2}{4}$ = _____ = _____ = _____

7. $\frac{2}{6}$ = _____ = _____

8. $\frac{2}{8}$ = _____ = _____

9. $\frac{2}{12}$ = _____

10. $\frac{3}{4}$ = _____ = _____

11. $\frac{3}{6}$ = _____ = _____ = _____

12. $\frac{3}{12}$ = _____ = _____

13. $\frac{4}{6}$ = _____ = _____

14. $\frac{4}{8}$ = _____ = _____

15. $\frac{4}{12}$ = _____ = _____

16. $\frac{5}{6}$ = _____

17. $\frac{6}{8}$ = _____ = _____

18. $\frac{6}{12}$ = _____ = _____ = _____

19. $\frac{8}{12}$ = _____ = _____

20. $\frac{9}{12}$ = _____ = _____

21. $\frac{10}{12}$ = _____ = _____

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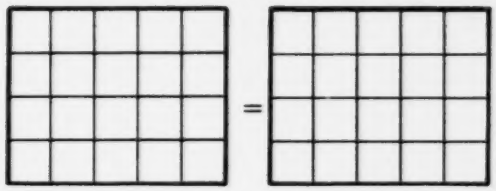
Subject: _____ Name: _____

Period: _____ Date: _____

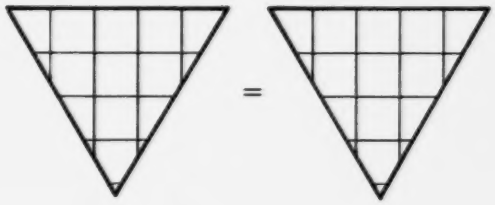
More Equivalent Fractions

Use these shapes to show these equivalent fractions. Look at the fraction under each shape.

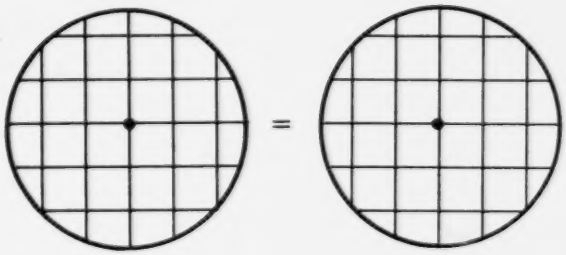
- First, divide each shape into the equal parts shown by the denominator.
- Then, shade the parts that the numerator shows.

1. 

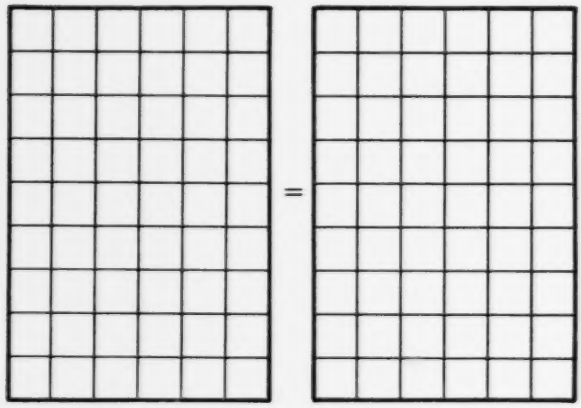
_____ = _____

2. 

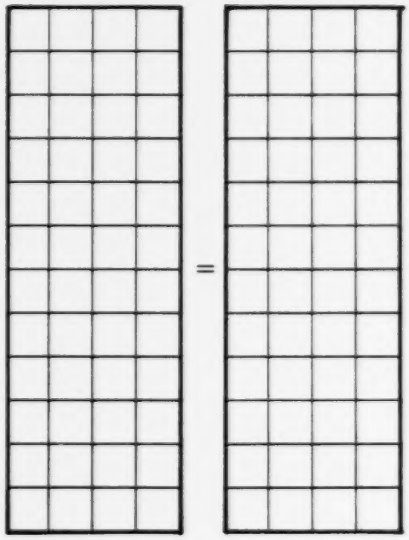
_____ = _____

3. 

_____ = _____

4. 

_____ = _____

5. 

_____ = _____

Note to the teacher: This WorkMaster sheet can be used repeatedly. Write new equivalents for each problem each time this sheet is used.

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Subject: _____ Name: _____

Period: _____ Date: _____

Kinds of Numbers

Set A

What kinds of numbers are these? Next to each number write one of these names:

improper fraction **proper fraction**
mixed number **whole number**

1. $3\frac{1}{2}$ _____
2. $\frac{5}{6}$ _____
3. $\frac{3}{3}$ _____
4. $\frac{1}{2}$ _____
5. 10 _____
6. $\frac{5}{2}$ _____
7. $1\frac{1}{9}$ _____
8. $\frac{7}{5}$ _____
9. $\frac{12}{24}$ _____
10. $\frac{7}{9}$ _____
11. $\frac{13}{10}$ _____
12. $\frac{2}{2}$ _____
13. $\frac{2}{3}$ _____
14. $\frac{6}{5}$ _____
15. 3 _____
16. $\frac{2}{1}$ _____
17. $\frac{10}{11}$ _____
18. $\frac{2}{5}$ _____
19. $\frac{9}{1}$ _____
20. $\frac{5}{5}$ _____

Set B

Write three examples of each kind of number.

Proper Fractions

1. _____
2. _____
3. _____

Improper Fractions

1. _____
2. _____
3. _____

Whole Numbers

1. _____
2. _____
3. _____

Mixed Numbers

1. _____
2. _____
3. _____

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SF28

Identifying proper and improper fractions, whole and mixed numbers/
SIMPLE FRACTIONS, Unit 3, p. 23.

Subject: _____ Name: _____

Period: _____ Date: _____

Unit 3: Fraction Check

A. Put a ✔ next to the fractions that equal 1.

_____ 1. $\frac{9}{9}$ _____ 4. $\frac{13}{13}$

_____ 2. $\frac{1}{12}$ _____ 5. $\frac{11}{11}$

_____ 3. $\frac{3}{6}$ _____ 6. $\frac{10}{19}$

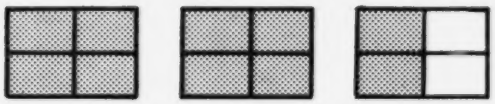
B. Write these numbers as fractions.

1. 10 ------ 4. 161 ------

2. 3 ------ 5. 768 ------

3. 42 ------ 6. 1003 ------

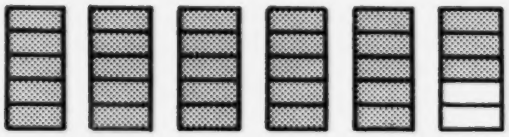
C. Write mixed numbers and their fraction equivalents for these shapes.

1. 

mixed number _____ = ------ fraction

2.

mixed number _____ = ------ fraction

3. 

mixed number _____ = ------ fraction

4.

mixed number _____ = ------ fraction

D. Draw a line between fractions that are *equivalents*.

1. $\frac{2}{3}$	a. $\frac{2}{16}$
2. $\frac{1}{8}$	b. $\frac{2}{10}$
3. $\frac{1}{5}$	c. $\frac{6}{8}$
4. $\frac{1}{2}$	d. $\frac{5}{10}$
5. $\frac{3}{4}$	e. $\frac{4}{6}$

E. Finish writing these different kinds of numbers.

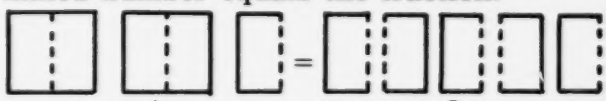
Mixed Numbers	Improper Fractions
1. _____ $\frac{1}{8}$	7. $\frac{}{2}$
2. $14\frac{}{6}$	8. $\frac{7}{}$
3. $2\frac{}{}$	9. $\frac{}{21}$

Proper Fractions	Whole Numbers
4. $\frac{}{3}$	10. _____
5. $\frac{7}{}$	11. _____
6. $\frac{12}{}$	12. _____

F. What kind of fraction is equivalent to a mixed number?

_____

Use these shapes to show how the mixed number equals the fraction.



$2\frac{1}{2}$ = $\frac{5}{2}$

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 4: Renaming Fractions

Set A

Rename these fractions as equivalents with higher terms.

1. $\frac{1}{4}$ = _____
2. $\frac{2}{5}$ = _____
3. $\frac{4}{7}$ = _____
4. $\frac{1}{2}$ = _____
5. $\frac{3}{8}$ = _____
6. $\frac{2}{3}$ = _____
7. $\frac{7}{9}$ = _____
8. $\frac{5}{6}$ = _____
9. $\frac{9}{10}$ = _____
10. $\frac{3}{11}$ = _____

Set B

Find the missing terms for these equivalents. Show all your work.

1. $\frac{1}{2} = \frac{\quad}{8}$
2. $\frac{3}{5} = \frac{9}{\quad}$
3. $\frac{4}{7} = \frac{16}{\quad}$
4. $\frac{3}{4} = \frac{15}{\quad}$
5. $\frac{1}{3} = \frac{8}{\quad}$
6. $\frac{5}{9} = \frac{\quad}{27}$

Set C

Reduce these fractions to their lowest terms.

1. $\frac{10}{12}$ = _____
2. $\frac{4}{8}$ = _____
3. $\frac{6}{9}$ = _____
4. $\frac{15}{25}$ = _____
5. $\frac{7}{21}$ = _____
6. $\frac{11}{33}$ = _____
7. $\frac{20}{36}$ = _____
8. $\frac{14}{42}$ = _____
9. $\frac{36}{81}$ = _____
10. $\frac{56}{72}$ = _____

Set D

Rename these fractions in their simplest forms. Show all your work.

1. $\frac{6}{5}$ = _____
2. $\frac{24}{3}$ = _____
3. $\frac{14}{1}$ = _____
4. $8\frac{6}{8}$ = _____
5. $\frac{31}{9}$ = _____
6. $\frac{41}{41}$ = _____

Score:

_____ no. right

_____ no. wrong

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Subject: _____ Name: _____

Period: _____ Date: _____

Higher and Lower Equivalents

Set A

Two of the fractions in each group equal each other. Draw a circle around them. Then write the fraction that has higher terms. (One is done.)

1. $\frac{1}{2} = \frac{1}{3} = \frac{2}{4}$ — $\frac{2}{4}$
2. $\frac{3}{5} = \frac{6}{10} = \frac{2}{6}$ — _____
3. $\frac{4}{9} = \frac{2}{18} = \frac{1}{9}$ — _____
4. $\frac{4}{7} = \frac{1}{5} = \frac{2}{10}$ — _____
5. $\frac{4}{8} = \frac{1}{2} = \frac{2}{6}$ — _____
6. $\frac{3}{5} = \frac{6}{15} = \frac{6}{10}$ — _____
7. $\frac{1}{3} = \frac{3}{12} = \frac{1}{4}$ — _____
8. $\frac{3}{9} = \frac{1}{3} = \frac{1}{18}$ — _____
9. $\frac{1}{7} = \frac{1}{14} = \frac{2}{28}$ — _____
10. $\frac{5}{6} = \frac{10}{12} = \frac{3}{15}$ — _____
11. $\frac{7}{14} = \frac{1}{2} = \frac{2}{3}$ — _____

Bonus: On another sheet of paper, write groups of equivalent fractions. Give your sheet to a classmate. Have him or her correct your paper.

Set B

Read these word problems. Then write the fractions that are equivalent in each problem. Write the fraction that has the lower terms first. (One is done.)

1. Paul drinks $\frac{1}{2}$ pint of milk. Don drinks $\frac{3}{6}$ pint of milk. Ann drinks $\frac{1}{3}$ pint of milk. How many pints did they drink altogether?

   $\frac{1}{2} = \frac{3}{6}$

2. $\frac{4}{6}$ of the 12 students in Mr. Gee's first period class are boys. $\frac{2}{3}$ of the 18 students in his second period class are boys. $\frac{1}{3}$ of the students in each class are girls. How many boys does Mr. Gee have in his first period class?

   _____ = _____

3. Edie, Marlo, and Marissa pick 20 boxes of apples. Marlo picks $\frac{6}{20}$ of those boxes. Marissa picks $\frac{3}{10}$ of them. And Edie picks $\frac{2}{5}$ of them. How many boxes does Marissa pick?

   _____ = _____

4. Randy's baby weighs 12 pounds. She gains $\frac{1}{4}$ pound one week. She gains another $\frac{2}{8}$ pound another week. Then she gains $\frac{12}{16}$ of a pound. How many pounds in all does the baby gain?

   _____ = _____

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Identifying lower and higher equivalent fractions/***SIMPLE FRACTIONS***, Unit 4, pp. 25–26.

SF31

Subject: _____ Name: _____

Period: _____ Date: _____

Raising Terms

Find equivalents with higher terms for these fractions. (Use any whole number.) Use the space below each problem to show your work.

1. $\frac{1}{7} =$

2. $\frac{2}{3} =$

3. $\frac{4}{5} =$

4. $\frac{1}{8} =$

5. $\frac{1}{2} =$

6. $\frac{3}{4} =$

7. $\frac{7}{10} =$

8. $\frac{3}{7} =$

9. $\frac{5}{6} =$

10. $\frac{3}{8} =$

11. $\frac{2}{5} =$

12. $\frac{7}{9} =$

13. $\frac{1}{4} =$

14. $\frac{3}{10} =$

15. $\frac{1}{9} =$

16. $\frac{5}{7} =$

17. $\frac{8}{9} =$

Bonus: On another sheet of paper, write some fractions. Give your sheet to a classmate. Have him or her find equivalent fractions with higher terms. Check his or her work.

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Subject: _____ Name: _____

Period: _____ Date: _____

An Equivalent Fractions Table

Use this table to find equivalent fractions. Under **fractions,** write fractions such as $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$, etc. Multiply the terms of each fraction like this: First multiply the numerator by a whole number at the top of the page. Then multiply the denominator by the same whole number. Write the raised terms as a fraction under the whole number. (One is done as an example.)

fractions	×1	×2	×3	×4	×5	×6	×7	×8	×9	×10
numerator / denominator	$\frac{1}{2}$	$\frac{2}{4}$	$\frac{3}{6}$	$\frac{4}{8}$	$\frac{5}{10}$	$\frac{6}{12}$	$\frac{7}{14}$	$\frac{8}{16}$	$\frac{9}{18}$	$\frac{10}{20}$
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—

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Period: _____ Date: _____

What Is the Missing Term?

Find the missing term in these problems. Show all your work below each problem.

1. $\frac{5}{6} = \frac{\quad}{18}$

2. $\frac{1}{3} = \frac{\quad}{15}$

3. $\frac{4}{7} = \frac{8}{\quad}$

4. $\frac{3}{5} = \frac{12}{\quad}$

5. $\frac{2}{5} = \frac{12}{\quad}$

6. $\frac{3}{4} = \frac{\quad}{16}$

7. $\frac{1}{2} = \frac{\quad}{18}$

8. $\frac{1}{2} = \frac{12}{\quad}$

9. $\frac{2}{3} = \frac{\quad}{24}$

10. $\frac{1}{9} = \frac{\quad}{27}$

11. $\frac{5}{6} = \frac{\quad}{48}$

12. $\frac{3}{7} = \frac{9}{\quad}$

13. $\frac{2}{9} = \frac{6}{\quad}$

14. $\frac{5}{7} = \frac{\quad}{35}$

15. $\frac{1}{3} = \frac{10}{\quad}$

16. $\frac{1}{8} = \frac{\quad}{48}$

17. $\frac{7}{10} = \frac{\quad}{100}$

18. $\frac{9}{10} = \frac{\quad}{100}$

Bonus: On another sheet of paper, write equivalent fractions with a term missing. Give your sheet to a classmate to do. Check his or her answers.

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Subject: _____ Name: _____

Period: _____ Date: _____

Reducing to Lowest Terms

You can reduce these fractions by dividing each term by one of these factors: 2, 3, 4, 6, and 8. Use the greatest common factor to reduce each fraction. Show your work below each problem.

1. $\frac{10}{12}$ =

2. $\frac{8}{16}$ =

3. $\frac{6}{9}$ =

4. $\frac{8}{10}$ =

5. $\frac{15}{21}$ =

6. $\frac{16}{24}$ =

7. $\frac{4}{20}$ =

8. $\frac{6}{12}$ =

9. $\frac{4}{8}$ =

10. $\frac{9}{12}$ =

11. $\frac{2}{16}$ =

12. $\frac{18}{20}$ =

13. $\frac{16}{36}$ =

14. $\frac{24}{27}$ =

15. $\frac{8}{32}$ =

16. $\frac{10}{22}$ =

17. $\frac{18}{48}$ =

18. $\frac{24}{56}$ =

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Subject: _____ Name: _____

Period: _____ Date: _____

The Greatest Common Factor

Use these tables to help you reduce fractions to their lowest terms. Write the terms of your fractions under the factor 1.

1.

Factor	÷1	÷2	÷3	÷4	÷5	÷6	÷7	÷8	÷9	÷10
Numerator										
Denominator										

a. What is the greatest common factor? _____

b. What are the lowest terms of the fraction? _____

2.

Factor	÷1	÷2	÷3	÷4	÷5	÷6	÷7	÷8	÷9	÷10
Numerator										
Denominator										

a. What is the greatest common factor? _____

b. What are the lowest terms of the fraction? _____

3.

Factor	÷1	÷2	÷3	÷4	÷5	÷6	÷7	÷8	÷9	÷10
Numerator										
Denominator										

a. What is the greatest common factor? _____

b. What are the lowest terms of the fraction? _____

4.

Factor	÷1	÷2	÷3	÷4	÷5	÷6	÷7	÷8	÷9	÷10
Numerator										
Denominator										

a. What is the greatest common factor? _____

b. What are the lowest terms of the fraction? _____

5.

Factor	÷1	÷2	÷3	÷4	÷5	÷6	÷7	÷8	÷9	÷10
Numerator										
Denominator										

a. What is the greatest common factor? _____

b. What are the lowest terms of the fraction? _____

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Subject: _____ Name: _____

Period: _____ Date: _____

Renaming Improper Fractions and Whole or Mixed Numbers

Rename these improper fractions in their simplest forms. Show all your work below each fraction. Your answer should be a whole or a mixed number.

Then check your answers. Rename each whole or mixed number as an improper fraction. Those fractions should be at their lowest terms. Show your work.

What's the answer?	Answer Check
1. $\frac{12}{4}$ =	1.
2. $\frac{16}{2}$ =	2.
3. $\frac{10}{6}$ =	3.
4. $\frac{14}{8}$ =	4.
5. $\frac{41}{6}$ =	5.
6. $\frac{33}{9}$ =	6.

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Subject: _____ Name: _____

Period: _____ Date: _____

Practice Renaming Fractions

Rename these fractions as their simplest forms.
Show your math work on another sheet of paper.

Practice 1

1. $\frac{5}{10}$ =
2. $\frac{8}{12}$ =
3. $\frac{3}{2}$ =
4. $1\frac{4}{4}$ =
5. $\frac{8}{8}$ =
6. $\frac{10}{10}$ =
7. $\frac{16}{1}$ =
8. $\frac{12}{1}$ =
9. $3\frac{5}{10}$ =
10. $4\frac{8}{12}$ =

Practice 2

1. $\frac{6}{9}$ =
2. $\frac{10}{12}$ =
3. $\frac{9}{7}$ =
4. $\frac{2}{8}$ =
5. $\frac{7}{7}$ =
6. $\frac{14}{14}$ =
7. $\frac{9}{1}$ =
8. $\frac{32}{1}$ =
9. $8\frac{8}{10}$ =
10. $7\frac{4}{8}$ =

Practice 3

1. $\frac{4}{8}$ =
2. $\frac{4}{6}$ =
3. $\frac{13}{3}$ =
4. $\frac{9}{6}$ =
5. $\frac{10}{10}$ =
6. $\frac{17}{17}$ =
7. $\frac{28}{1}$ =
8. $\frac{145}{1}$ =
9. $12\frac{6}{10}$ =
10. $14\frac{5}{15}$ =

Practice 4

1. $\frac{18}{24}$ =
2. $\frac{15}{18}$ =
3. $\frac{14}{24}$ =
4. $\frac{24}{14}$ =
5. $\frac{37}{10}$ =
6. $\frac{14}{3}$ =
7. $\frac{81}{81}$ =
8. $\frac{121}{1}$ =
9. $25\frac{22}{30}$ =
10. $38\frac{8}{48}$ =

Practice 5

1. $\frac{40}{10}$ =
2. $\frac{18}{26}$ =
3. $5\frac{4}{10}$ =
4. $3\frac{3}{9}$ =
5. $\frac{41}{41}$ =
6. $18\frac{27}{30}$ =
7. $\frac{38}{1}$ =
8. $\frac{80}{160}$ =
9. $\frac{28}{42}$ =
10. $\frac{178}{1}$ =

Practice 6

1. $31\frac{10}{28}$ =
2. $\frac{25}{45}$ =
3. $\frac{101}{101}$ =
4. $142\frac{10}{10}$ =
5. $\frac{81}{81}$ =
6. $\frac{128}{162}$ =
7. $\frac{42}{12}$ =
8. $11\frac{10}{28}$ =
9. $\frac{56}{224}$ =
10. $\frac{101}{12}$ =

SF38

Renaming fractions as their simplest forms/*SIMPLE FRACTIONS*, Unit 4, pp. 30–33.

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 4: Fraction Check

Set A

Find equivalents with lower and higher terms for these fractions.

1. ------- = $\frac{4}{8}$ = -------
2. ------- = $\frac{10}{12}$ = -------
3. ------- = $\frac{8}{10}$ = -------
4. ------- = $\frac{6}{9}$ = -------
5. ------- = $\frac{6}{12}$ = -------
6. ------- = $\frac{10}{18}$ = -------
7. ------- = $\frac{10}{15}$ = -------
8. ------- = $\frac{14}{22}$ = -------

Set B

Find out if the terms written in these equivalent fractions are correct. If a term is wrong, cross it out. Write the correct term next to it. Do your math work on another sheet of paper.

1. $\frac{1}{2} = \frac{6}{7}$
2. $\frac{3}{5} = \frac{8}{10}$
3. $\frac{2}{3} = \frac{10}{15}$
4. $\frac{2}{7} = \frac{4}{14}$
5. $\frac{3}{8} = \frac{6}{16}$
6. $\frac{5}{6} = \frac{20}{24}$
7. $\frac{5}{9} = \frac{15}{20}$
8. $\frac{7}{10} = \frac{28}{30}$

Set C

Find the greatest common factor that you'd use to reduce these fractions. Then reduce the fractions.

1. $\frac{12}{18}$
2. $\frac{16}{24}$
3. $\frac{21}{28}$
4. $\frac{32}{40}$
5. $\frac{9}{27}$
6. $\frac{15}{30}$

Set D

Describe how you would simplify each fraction.

1. $\frac{14}{28}$

2. $\frac{48}{5}$

3. $14\frac{8}{12}$

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 5: Comparing Fractions

Set A

Draw a circle around each math sentence that is true. (Do any math work on another sheet of paper.)

1. a. $\frac{1}{2} > \frac{1}{8}$ b. $\frac{1}{2} < \frac{1}{8}$
2. a. $\frac{1}{24} > \frac{1}{2}$ b. $\frac{1}{24} < \frac{1}{2}$
3. a. $\frac{5}{12} > \frac{5}{13}$ b. $\frac{5}{12} < \frac{5}{13}$
4. a. $\frac{3}{8} < \frac{5}{8}$ b. $\frac{3}{8} > \frac{5}{8}$
5. a. $\frac{7}{10} < \frac{3}{10}$ b. $\frac{7}{10} > \frac{3}{10}$
6. a. $\frac{9}{16} < \frac{5}{16}$ b. $\frac{9}{16} > \frac{5}{16}$
7. a. $\frac{5}{6} > \frac{7}{8}$ b. $\frac{5}{6} < \frac{7}{8}$
8. a. $\frac{2}{3} > \frac{1}{4}$ b. $\frac{2}{3} < \frac{1}{4}$
9. a. $\frac{3}{8} > \frac{1}{2}$ b. $\frac{3}{8} < \frac{1}{2}$

Set B

Find the lowest common denominator, or LCD, of each pair of fractions. Use another sheet of paper to figure the answers.

1. $\frac{1}{8}, \frac{3}{4}$ LCD = _____
2. $\frac{5}{6}, \frac{7}{8}$ LCD = _____
3. $\frac{2}{3}, \frac{3}{5}$ LCD = _____
4. $\frac{1}{9}, \frac{1}{5}$ LCD = _____
5. $\frac{3}{4}, \frac{2}{7}$ LCD = _____

Set C

Put each set of fractions in order from smallest to largest. Use another sheet of paper to figure the answers.

1. $\frac{3}{8}, \frac{3}{4}, \frac{3}{7}$ _____ < _____ < _____
2. $\frac{4}{5}, \frac{1}{5}, \frac{3}{5}$ _____ < _____ < _____
3. $\frac{5}{6}, \frac{2}{3}, \frac{3}{4}$ _____ < _____ < _____
4. $\frac{2}{7}, \frac{2}{9}, \frac{2}{3}$ _____ < _____ < _____
5. $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$ _____ < _____ < _____
6. $\frac{5}{8}, \frac{7}{8}, \frac{3}{8}$ _____ < _____ < _____

Score: _____ no. right

_____ no. wrong

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Subject: _____ Name: _____

Period: _____ Date: _____

Larger or Smaller?

Set A

Which fraction in each set is larger? Which fraction is smaller? Write > (larger than) or < (smaller than) between the fractions. (One is done.)

1. $\frac{2}{3} > \frac{2}{5}$
2. $\frac{5}{6}$ $\frac{5}{8}$
3. $\frac{4}{9}$ $\frac{4}{8}$
4. $\frac{2}{3}$ $\frac{2}{5}$
5. $\frac{3}{8}$ $\frac{3}{4}$
6. $\frac{3}{7}$ $\frac{3}{5}$
7. $\frac{4}{5}$ $\frac{4}{9}$
8. $\frac{7}{8}$ $\frac{7}{9}$
9. $\frac{11}{13}$ $\frac{11}{12}$
10. $\frac{2}{11}$ $\frac{2}{9}$
11. $\frac{4}{15}$ $\frac{4}{23}$
12. $\frac{7}{27}$ $\frac{7}{18}$
13. $\frac{4}{5}$ $\frac{4}{21}$
14. $\frac{15}{31}$ $\frac{15}{41}$
15. $\frac{5}{17}$ $\frac{5}{29}$
16. $\frac{22}{57}$ $\frac{22}{63}$

Set B

Finish writing the fractions. The fractions in each pair should have the same numerator, but a different denominator. (The first is done.)

1. $\frac{2}{3} > \frac{2}{7}$
2. $\frac{3}{4} > -$
3. $\frac{2}{5} < -$
4. $\frac{1}{3} < -$
5. $\frac{3}{5} > -$
6. $\frac{5}{8} < -$
7. $\frac{3}{8} < -$
8. $\frac{3}{8} > -$
9. $\frac{3}{7} < -$
10. $\frac{3}{7} > -$
11. $\frac{4}{9} > -$
12. $\frac{4}{9} < -$
13. $\frac{5}{7} < -$
14. $\frac{5}{7} > -$
15. $\frac{7}{9} < -$
16. $\frac{2}{9} < -$

Set C

Write > (larger than) or < (smaller than) in each set of fractions.

1. $\frac{1}{4}$ $\frac{3}{4}$
2. $\frac{2}{5}$ $\frac{3}{5}$
3. $\frac{3}{9}$ $\frac{4}{9}$
4. $\frac{5}{6}$ $\frac{3}{6}$
5. $\frac{3}{8}$ $\frac{1}{8}$
6. $\frac{2}{3}$ $\frac{1}{3}$
7. $\frac{5}{7}$ $\frac{3}{7}$
8. $\frac{2}{9}$ $\frac{7}{9}$
9. $\frac{1}{13}$ $\frac{3}{13}$
10. $\frac{8}{9}$ $\frac{7}{9}$
11. $\frac{6}{11}$ $\frac{9}{11}$
12. $\frac{3}{17}$ $\frac{12}{17}$
13. $\frac{14}{23}$ $\frac{16}{23}$
14. $\frac{31}{42}$ $\frac{13}{42}$
15. $\frac{12}{57}$ $\frac{41}{57}$
16. $\frac{18}{63}$ $\frac{37}{63}$

Set D

Finish writing the fractions. The fractions in each pair should have the same denominator, but a different numerator. (The first is done.)

1. $\frac{3}{5} < \frac{4}{5}$
2. $\frac{3}{5} > -$
3. $\frac{2}{3} < -$
4. $\frac{2}{3} > -$
5. $\frac{4}{7} > -$
6. $\frac{4}{7} < -$
7. $\frac{5}{9} < -$
8. $\frac{5}{9} > -$
9. $\frac{5}{6} > -$
10. $\frac{5}{6} < -$
11. $\frac{5}{8} < -$
12. $\frac{5}{8} > -$
13. $\frac{7}{10} < -$
14. $\frac{7}{10} > -$
15. $\frac{3}{7} < -$
16. $\frac{3}{7} > -$

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SF41

Subject: _____ Name: _____

Period: _____ Date: _____

Check These Worksheets

A.

Here are Tim's and T. J.'s worksheets on comparing fractions. Check their work. Mark C after each correct answer.

Tim — Score _____

1. $\frac{1}{2} > \frac{1}{3}$ C
2. $\frac{2}{11} > \frac{2}{9}$ _____
3. $\frac{3}{6} > \frac{2}{6}$ _____
4. $\frac{7}{11} < \frac{9}{11}$ _____
5. $\frac{3}{4} > \frac{3}{8}$ _____
6. $\frac{4}{5} < \frac{4}{9}$ _____
7. $\frac{3}{9} < \frac{7}{9}$ _____
8. $\frac{7}{16} < \frac{7}{32}$ _____
9. $\frac{9}{16} > \frac{5}{16}$ _____
10. $\frac{2}{7} < \frac{2}{3}$ _____

T. J. — Score _____

1. $\frac{1}{2} > \frac{1}{3}$ C
2. $\frac{2}{11} < \frac{2}{9}$ _____
3. $\frac{3}{6} > \frac{2}{6}$ _____
4. $\frac{7}{11} > \frac{9}{11}$ _____
5. $\frac{3}{4} > \frac{3}{8}$ _____
6. $\frac{4}{5} > \frac{4}{9}$ _____
7. $\frac{3}{9} < \frac{7}{9}$ _____
8. $\frac{7}{16} > \frac{7}{32}$ _____
9. $\frac{9}{16} > \frac{5}{16}$ _____
10. $\frac{2}{7} < \frac{2}{3}$ _____

B.

Score each person's worksheet. To do that, write a fraction in the score box at the top of each sheet. In the denominator, write the total number of problems (10). In the numerator, write the number of correct answers on that sheet.

C.

Tell if Tim's score is more than or less than T. J.'s score. Write > or < in the box.

Tim's score $\frac{}{10}$ ☐ $\frac{}{10}$ T. J.'s score

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Subject: _____ Name: _____

Period: _____ Date: _____

Compare Unlike Fractions

Rename these fractions so that you can compare them. Do all your work on another sheet of paper. Then write the renamed fractions below. Write < or > in the original fractions. (The first is done.)

Set A	Set B	Set C
1. $\frac{5}{6}$ --$>$-- $\frac{3}{4}$	1. $\frac{3}{5}$ ------- $\frac{2}{3}$	1. $\frac{2}{9}$ ------- $\frac{1}{3}$
$\frac{10}{12} > \frac{9}{12}$		
2. $\frac{2}{5}$ ------- $\frac{1}{3}$	2. $\frac{1}{4}$ ------- $\frac{5}{6}$	2. $\frac{1}{2}$ ------- $\frac{4}{9}$
3. $\frac{3}{5}$ ------- $\frac{1}{2}$	3. $\frac{1}{2}$ ------- $\frac{2}{5}$	3. $\frac{1}{8}$ ------- $\frac{2}{5}$
4. $\frac{7}{8}$ ------- $\frac{2}{3}$	4. $\frac{2}{3}$ ------- $\frac{3}{7}$	4. $\frac{4}{9}$ ------- $\frac{1}{3}$
5. $\frac{1}{6}$ ------- $\frac{4}{7}$	5. $\frac{8}{9}$ ------- $\frac{3}{4}$	5. $\frac{2}{7}$ ------- $\frac{5}{11}$
6. $\frac{4}{5}$ ------- $\frac{3}{7}$	6. $\frac{3}{4}$ ------- $\frac{7}{12}$	6. $\frac{5}{7}$ ------- $\frac{3}{5}$
7. $\frac{2}{11}$ ------- $\frac{3}{5}$	7. $\frac{4}{6}$ ------- $\frac{3}{10}$	7. $\frac{1}{2}$ ------- $\frac{3}{13}$

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Subject: _____ Name: _____

Period: _____ Date: _____

The Lowest Common Denominator

Use these tables to help you find the lowest common denominator for different fractions. First write each fraction in front of each line in the table. Then write its denominator on that line. Next, multiply each denominator by the same whole number.

	×1	×2	×3	×4	×5	×6	×7	×8	×9	×10					

	×1	×2	×3	×4	×5	×6	×7	×8	×9	×10					

	×1	×2	×3	×4	×5	×6	×7	×8	×9	×10					

	×1	×2	×3	×4	×5	×6	×7	×8	×9	×10					

	×1	×2	×3	×4	×5	×6	×7	×8	×9	×10					

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SF44

Subject: _____ Name: _____

Period: _____ Date: _____

Put Them in Order

Put these fractions in order from smallest to largest.
Do your math work on another sheet of paper.

Set A	Set B	Set C
1. $\frac{3}{5}, \frac{2}{5}, \frac{1}{5}$	1. $\frac{5}{6}, \frac{5}{8}, \frac{5}{11}$	1. $\frac{2}{9}, \frac{5}{6}, \frac{1}{3}$
----- < ----- < -----	----- < ----- < -----	----- < ----- < -----
2. $\frac{2}{3}, \frac{2}{8}, \frac{2}{5}$	2. $\frac{4}{5}, \frac{3}{5}, \frac{1}{5}$	2. $\frac{7}{15}, \frac{5}{9}, \frac{4}{5}$
----- < ----- < -----	----- < ----- < -----	----- < ----- < -----
3. $\frac{1}{2}, \frac{3}{4}, \frac{1}{3}$	3. $\frac{1}{4}, \frac{2}{3}, \frac{5}{12}$	3. $\frac{11}{17}, \frac{8}{17}, \frac{15}{17}$
----- < ----- < -----	----- < ----- < -----	----- < ----- < -----
4. $\frac{4}{7}, \frac{4}{5}, \frac{4}{9}$	4. $\frac{7}{10}, \frac{3}{10}, \frac{5}{10}$	4. $\frac{6}{21}, \frac{13}{21}, \frac{20}{21}$
----- < ----- < -----	----- < ----- < -----	----- < ----- < -----
5. $\frac{2}{3}, \frac{1}{5}, \frac{1}{2}$	5. $\frac{5}{6}, \frac{3}{6}, \frac{1}{6}$	5. $\frac{15}{31}, \frac{15}{28}, \frac{15}{43}$
----- < ----- < -----	----- < ----- < -----	----- < ----- < -----
6. $\frac{4}{7}, \frac{1}{7}, \frac{3}{7}$	6. $\frac{2}{3}, \frac{3}{8}, \frac{4}{6}$	6. $\frac{10}{41}, \frac{10}{51}, \frac{10}{31}$
----- < ----- < -----	----- < ----- < -----	----- < ----- < -----
7. $\frac{11}{12}, \frac{3}{12}, \frac{7}{12}$	7. $\frac{2}{9}, \frac{2}{7}, \frac{2}{3}$	7. $\frac{41}{56}, \frac{41}{63}, \frac{41}{85}$
----- < ----- < -----	----- < ----- < -----	----- < ----- < -----
8. $\frac{3}{10}, \frac{3}{7}, \frac{3}{4}$	8. $\frac{7}{12}, \frac{7}{8}, \frac{7}{20}$	8. $\frac{63}{121}, \frac{15}{121}, \frac{110}{121}$
----- < ----- < -----	----- < ----- < -----	----- < ----- < -----
9. $\frac{2}{5}, \frac{1}{6}, \frac{2}{3}$	9. $\frac{3}{7}, \frac{1}{2}, \frac{3}{4}$	9. $\frac{5}{24}, \frac{3}{12}, \frac{7}{8}$
----- < ----- < -----	----- < ----- < -----	----- < ----- < -----

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SF45

Putting fractions in order/***SIMPLE FRACTIONS***, Unit 5, pp. 41–43.

Subject: _____ Name: _____

Period: _____ Date: _____

Unit 5: Fraction Check

A.

Why are these math sentences true? Write your answers below.

1. $\frac{2}{3} > \frac{1}{3}$

_____

_____

2. $\frac{3}{7} < \frac{3}{5}$

_____

_____

B.

1. Find the LCD for $\frac{2}{5}$ and $\frac{3}{7}$. Show your work here:

2. Rename $\frac{2}{5}$ and $\frac{3}{7}$ with their LCD. Show your work here:

C.

Write examples for these kinds of fractions.

1. same numerator, different denominator

   a. ----- > ----- b. ----- < -----

2. different numerator, same denominator

   a. ----- > ----- b. ----- < -----

3. different numerator, different denominator

   a. ----- > ----- b. ----- < -----

D.

Write a set of fractions that are in order from smallest to largest.

1. same numerator, different denominator

   ----- > ----- > -----

2. different numerator, same denominator

   ----- > ----- > -----

3. different numerator, different denominator

   ----- > ----- > -----

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 6: Multiplying Fractions

Set A

Solve these problems. Reduce your answers.

1. $\frac{1}{2} \times \frac{1}{3} =$

2. $\frac{3}{4} \times \frac{2}{5} =$

3. $\frac{3}{7} \times \frac{1}{4} =$

4. $\frac{1}{8} \times \frac{4}{5} =$

5. $\frac{2}{3} \times \frac{3}{4} =$

6. $\frac{2}{5} \times \frac{1}{2} =$

Set B

Solve those problems. Reduce your answers. (Show all your math work.)

1. $2 \times \frac{1}{3} =$

2. $\frac{3}{5} \times 3\frac{1}{2} =$

Set C

Simplify these problems. Simplify the fractions before multiplying. Reduce your answers and rename answers that are improper fractions. (Show your math work.)

1. $\frac{4}{5} \times \frac{3}{8} =$

2. $\frac{5}{6} \times \frac{4}{15} =$

3. $\frac{2}{3} \times \frac{6}{4} =$

Score:

_____ no. right

_____ no. wrong

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Subject: _____ Name: _____

Period: _____ Date: _____

Multiplying Fractions

Solve these multiplication problems. Reduce answers to lowest terms. Then check your answers. Show all your math work on another sheet of paper.

Practice 1

1. $\frac{2}{3} \times \frac{3}{8} =$
2. $\frac{1}{2} \times \frac{5}{9} =$
3. $\frac{3}{4} \times \frac{8}{9} =$
4. $\frac{5}{6} \times \frac{3}{4} =$
5. $\frac{7}{10} \times \frac{1}{7} =$
6. $\frac{5}{8} \times \frac{1}{2} =$
7. $\frac{1}{3} \times \frac{9}{10} =$
8. $\frac{3}{4} \times \frac{1}{2} =$
9. $\frac{5}{12} \times \frac{4}{5} =$
10. $\frac{2}{9} \times \frac{3}{7} =$

Practice 2

1. $\frac{1}{5} \times \frac{3}{7} =$
2. $\frac{2}{8} \times \frac{3}{4} =$
3. $\frac{5}{6} \times \frac{2}{3} =$
4. $\frac{3}{8} \times \frac{1}{6} =$
5. $\frac{1}{2} \times \frac{7}{8} =$
6. $\frac{4}{5} \times \frac{3}{10} =$
7. $\frac{2}{11} \times \frac{4}{9} =$
8. $\frac{3}{10} \times \frac{7}{8} =$
9. $\frac{3}{4} \times \frac{1}{2} =$
10. $\frac{8}{9} \times \frac{2}{3} =$

Practice 3

1. $\frac{2}{3} \times \frac{1}{4} =$
2. $\frac{1}{2} \times \frac{1}{3} =$
3. $\frac{3}{5} \times \frac{2}{3} =$
4. $\frac{3}{4} \times \frac{3}{5} =$
5. $\frac{1}{8} \times \frac{3}{9} =$
6. $\frac{2}{9} \times \frac{3}{5} =$
7. $\frac{6}{7} \times \frac{1}{4} =$
8. $\frac{5}{6} \times \frac{2}{5} =$
9. $\frac{1}{2} \times \frac{5}{6} =$
10. $\frac{3}{8} \times \frac{1}{3} =$

Practice 4

1. $\frac{1}{2} \times \frac{3}{12} =$
2. $\frac{2}{5} \times \frac{5}{9} =$
3. $\frac{3}{7} \times \frac{4}{9} =$
4. $\frac{5}{12} \times \frac{3}{4} =$
5. $\frac{5}{6} \times \frac{4}{7} =$
6. $\frac{10}{11} \times \frac{2}{3} =$
7. $\frac{4}{5} \times \frac{8}{15} =$
8. $\frac{9}{10} \times \frac{3}{7} =$
9. $\frac{5}{6} \times \frac{9}{11} =$
10. $\frac{1}{7} \times \frac{9}{10} =$

Practice 5

1. $\frac{4}{7} \times \frac{5}{6} =$
2. $\frac{3}{8} \times \frac{2}{3} =$
3. $\frac{5}{7} \times \frac{4}{6} =$
4. $\frac{3}{10} \times \frac{1}{5} =$
5. $\frac{5}{13} \times \frac{2}{3} =$
6. $\frac{4}{9} \times \frac{5}{6} =$
7. $\frac{3}{7} \times \frac{7}{8} =$
8. $\frac{2}{9} \times \frac{4}{11} =$
9. $\frac{7}{10} \times \frac{2}{7} =$
10. $\frac{8}{11} \times \frac{3}{8} =$

Practice 6

1. $\frac{8}{9} \times \frac{3}{5} =$
2. $\frac{5}{7} \times \frac{5}{6} =$
3. $\frac{4}{12} \times \frac{3}{4} =$
4. $\frac{6}{18} \times \frac{1}{3} =$
5. $\frac{8}{10} \times \frac{4}{7} =$
6. $\frac{7}{6} \times \frac{3}{22} =$
7. $\frac{8}{31} \times \frac{2}{3} =$
8. $\frac{15}{40} \times \frac{1}{2} =$
9. $\frac{12}{18} \times \frac{3}{6} =$
10. $\frac{8}{12} \times \frac{4}{5} =$

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Period: _____ Date: _____

Multiplying Whole or Mixed Numbers

Solve these multiplication problems. Reduce answers to lowest terms. Rename improper fractions. Then check your answers. Show all your math work on another sheet of paper.

Practice 1

1. $3 \times \frac{3}{8} =$
2. $5 \times \frac{2}{3} =$
3. $1\frac{1}{2} \times \frac{1}{4} =$
4. $2\frac{2}{3} \times \frac{3}{5} =$
5. $4 \times \frac{2}{5} =$
6. $1\frac{3}{4} \times \frac{7}{9} =$
7. $3\frac{1}{2} \times \frac{5}{6} =$
8. $4 \times \frac{2}{8} =$
9. $1\frac{2}{7} \times \frac{3}{5} =$
10. $5 \times \frac{1}{2} =$

Practice 2

1. $\frac{2}{3} \times 1\frac{1}{2} =$
2. $\frac{1}{5} \times 2 =$
3. $\frac{3}{7} \times 4 =$
4. $\frac{2}{4} \times 1\frac{1}{2} =$
5. $\frac{2}{5} \times 3 =$
6. $\frac{3}{5} \times 2\frac{1}{5} =$
7. $\frac{1}{8} \times 3\frac{2}{4} =$
8. $\frac{3}{4} \times 5 =$
9. $\frac{2}{9} \times 1\frac{1}{7} =$
10. $\frac{5}{6} \times 5\frac{3}{6} =$

Practice 3

1. $\frac{1}{3} \times 3\frac{1}{5} =$
2. $\frac{2}{4} \times 1\frac{1}{2} =$
3. $6 \times \frac{3}{5} =$
4. $\frac{4}{9} \times 6 =$
5. $2\frac{1}{8} \times \frac{1}{9} =$
6. $\frac{2}{9} \times 8 =$
7. $7 \times \frac{1}{4} =$
8. $\frac{5}{8} \times 3\frac{2}{5} =$
9. $\frac{2}{3} \times 4\frac{1}{2} =$
10. $7 \times \frac{5}{7} =$

Practice 4

1. $8\frac{3}{5} \times \frac{1}{3} =$
2. $2\frac{1}{2} \times \frac{3}{4} =$
3. $\frac{5}{8} \times 4 =$
4. $\frac{3}{7} \times 5\frac{1}{2} =$
5. $12 \times \frac{2}{4} =$
6. $18 \times \frac{5}{6} =$
7. $2\frac{1}{3} \times \frac{10}{30} =$
8. $3 \times \frac{15}{28} =$
9. $\frac{2}{9} \times 24\frac{1}{8} =$
10. $\frac{3}{7} \times 49 =$

Practice 5

1. $\frac{1}{2} \times 16 =$
2. $\frac{3}{4} \times 10 =$
3. $3\frac{2}{3} \times \frac{4}{5} =$
4. $\frac{1}{7} \times 3\frac{5}{7} =$
5. $10 \times \frac{2}{5} =$
6. $\frac{3}{4} \times 20 =$
7. $\frac{1}{10} \times 4\frac{1}{8} =$
8. $11\frac{1}{4} \times \frac{1}{2} =$
9. $9 \times \frac{5}{9} =$
10. $12\frac{3}{5} \times \frac{2}{8} =$

Practice 6

1. $\frac{5}{10} \times 10\frac{1}{2} =$
2. $6\frac{1}{8} \times \frac{3}{4} =$
3. $14\frac{2}{3} \times \frac{1}{6} =$
4. $\frac{3}{8} \times 18 =$
5. $1\frac{1}{3} \times 36 =$
6. $2\frac{1}{2} \times \frac{15}{60} =$
7. $105 \times \frac{2}{5} =$
8. $\frac{10}{100} \times 10\frac{1}{2} =$
9. $\frac{33}{69} \times 3 =$
10. $124 \times \frac{5}{6} =$

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Subject: _____ Name: _____

Period: _____ Date: _____

Simplify First

Solve these multiplication problems. Simplify the terms first. Reduce answers. Rename improper fractions. Check your answers. Do all your math work on another sheet of paper.

Practice 1

1. $\frac{1}{2} \times \frac{4}{5} =$
2. $\frac{3}{4} \times \frac{2}{6} =$
3. $\frac{2}{3} \times \frac{6}{8} =$
4. $\frac{2}{4} \times \frac{1}{2} =$
5. $\frac{3}{8} \times \frac{2}{3} =$
6. $\frac{5}{6} \times \frac{1}{5} =$
7. $\frac{2}{5} \times \frac{3}{4} =$
8. $\frac{1}{8} \times \frac{4}{7} =$
9. $\frac{2}{3} \times \frac{6}{7} =$
10. $\frac{4}{8} \times \frac{4}{6} =$

Practice 2

1. $\frac{2}{3} \times \frac{1}{2} =$
2. $\frac{3}{4} \times \frac{1}{3} =$
3. $\frac{2}{3} \times \frac{3}{5} =$
4. $\frac{4}{5} \times \frac{3}{4} =$
5. $\frac{3}{5} \times \frac{5}{8} =$
6. $\frac{5}{7} \times \frac{7}{9} =$
7. $\frac{2}{8} \times \frac{8}{9} =$
8. $\frac{5}{8} \times \frac{1}{5} =$
9. $\frac{5}{6} \times \frac{6}{7} =$
10. $\frac{4}{9} \times \frac{9}{11} =$

Practice 3

1. $\frac{3}{4} \times \frac{4}{7} =$
2. $\frac{3}{5} \times \frac{1}{6} =$
3. $\frac{2}{3} \times \frac{6}{7} =$
4. $\frac{1}{5} \times \frac{10}{13} =$
5. $\frac{4}{7} \times \frac{1}{8} =$
6. $\frac{3}{8} \times \frac{5}{6} =$
7. $\frac{5}{9} \times \frac{3}{7} =$
8. $\frac{6}{7} \times \frac{8}{9} =$
9. $\frac{5}{6} \times \frac{3}{4} =$
10. $\frac{5}{6} \times \frac{7}{10} =$

Practice 4

1. $\frac{5}{8} \times \frac{2}{5} =$
2. $\frac{2}{3} \times \frac{3}{10} =$
3. $\frac{4}{6} \times \frac{3}{4} =$
4. $\frac{2}{8} \times \frac{1}{4} =$
5. $\frac{5}{6} \times \frac{2}{5} =$
6. $\frac{5}{8} \times \frac{8}{10} =$
7. $\frac{3}{4} \times \frac{4}{12} =$
8. $\frac{2}{3} \times \frac{3}{6} =$
9. $\frac{3}{9} \times \frac{4}{6} =$
10. $\frac{2}{5} \times \frac{10}{12} =$

Practice 5

1. $\frac{2}{4} \times \frac{6}{8} =$
2. $\frac{3}{4} \times \frac{8}{9} =$
3. $\frac{1}{2} \times \frac{4}{8} =$
4. $\frac{3}{8} \times \frac{4}{9} =$
5. $\frac{5}{12} \times \frac{9}{10} =$
6. $\frac{3}{20} \times \frac{5}{6} =$
7. $\frac{2}{3} \times \frac{9}{16} =$
8. $\frac{3}{4} \times \frac{8}{15} =$
9. $\frac{5}{7} \times \frac{14}{15} =$
10. $\frac{7}{8} \times \frac{4}{21} =$

Practice 6

1. $\frac{3}{7} \times \frac{14}{21} =$
2. $\frac{8}{9} \times \frac{18}{24} =$
3. $\frac{6}{8} \times \frac{12}{15} =$
4. $\frac{4}{5} \times \frac{15}{24} =$
5. $\frac{4}{8} \times \frac{10}{12} =$
6. $\frac{6}{10} \times \frac{14}{18} =$
7. $\frac{3}{9} \times \frac{36}{40} =$
8. $\frac{3}{18} \times \frac{9}{27} =$
9. $\frac{10}{12} \times \frac{21}{50} =$
10. $\frac{12}{15} \times \frac{18}{36} =$

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 6: Word Problems

To solve these word problems, you'd multiply. Read the problem. Then write a math problem for it. Reduce answers to lowest terms. Rename improper fractions.

1. The regular price of a pair of jeans is $21. They are marked "$\frac{1}{3}$ off." How much can you save?

2. Rocky's car has a 6-cylinder engine. $\frac{1}{3}$ of the cylinders don't work. How many cylinders don't work?

3. B. J. eats $\frac{3}{4}$ of a $\frac{1}{2}$ pound hamburger. How much hamburger does B. J. eat?

4. A recipe for cheese spread calls for $\frac{3}{4}$ pound of cream cheese. If you make $\frac{1}{3}$ of the recipe, how much cheese do you use?

5. A piece of fabric measures $\frac{2}{3}$ yard. If you use $\frac{3}{4}$ of the fabric, how much do you use?

6. Suppose you work 15 hours a week. But this week you work only $\frac{1}{2}$ as many hours. How many hours do you work this week?

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SF51

Multiplying fractions in word problems/***SIMPLE FRACTIONS***, Unit 6, pp. 46–49.

Subject: _____ Name: _____

Period: _____ Date: _____

Unit 6: Fraction Check

Set A

Write three problems that show a proper fraction multiplying another proper fraction. Then solve your problems. Reduce answers to lowest terms. Check your answers.

1. ___ × ___ =

2. ___ × ___ =

3. ___ × ___ =

Set B

Write two problems: one that shows a fraction multiplying a whole number and another that shows a fraction multiplying a mixed number. Solve the problems. Reduce the answers. Rename improper fractions. And check your answers.

1. ___ × ___ =

2. ___ × ___ =

Set C

Write four problems that show fractions you can simplify before multiplying. Then solve your problems. Reduce your answers. Rename improper fractions.

1. ___ × ___ =

2. ___ × ___ =

3. ___ × ___ =

4. ___ × ___ =

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 7: Adding and Subtracting Fractions

Set A

Solve these problems. Reduce answers to lowest terms. Rename improper fractions. Show all your math work.

Math Work

1. $\frac{5}{9} + \frac{2}{9}$

2. $\frac{1}{3} + \frac{2}{9}$

3. $5 + \frac{7}{8}$

4. $\frac{1}{5} + \frac{3}{5} =$

5. $\frac{1}{4} + \frac{1}{5} =$

6. $3 + \frac{2}{9} =$

Set B

Solve these problems. Reduce answers to lowest terms. Rename improper fractions. Show all your math work.

Math Work

1. $\frac{5}{6} - \frac{2}{6}$

2. $\frac{1}{4} - \frac{1}{5}$

3. $3 - \frac{3}{8}$

4. $\frac{7}{9} - \frac{3}{9} =$

5. $\frac{3}{4} - \frac{1}{2} =$

6. $1 - \frac{1}{4} =$

Score:

_____ no. right

_____ no. wrong

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Subject: _____ Name: _____

Period: _____ Date: _____

Adding or Subtracting Like Fractions

Add or subtract these problems. Reduce answers.
Rename improper fractions. Show your math work.

Set A *Math Work*

1. $\frac{2}{5} + \frac{1}{5}$ =

2. $\frac{1}{9} + \frac{5}{9}$ =

3. $\frac{3}{8} + \frac{5}{8}$ =

Math Work

4. $\frac{1}{5} + \frac{3}{5} + \frac{4}{5}$ =

5. $\frac{5}{12} + \frac{2}{12} + \frac{11}{12}$ =

6. $\frac{1}{3} + \frac{2}{3} + \frac{3}{3}$ =

Math Work

7. $\frac{7}{8} + \frac{5}{8}$ =

8. $\frac{9}{10} + \frac{7}{10} + \frac{3}{10}$ =

9. $\frac{11}{16} + \frac{3}{16} + \frac{6}{16}$ =

Set B *Math Work*

1. $\frac{2}{3} - \frac{1}{3}$ =

2. $\frac{5}{8} - \frac{1}{8}$ =

3. $\frac{9}{16} - \frac{1}{16}$ =

Math Work

4. $\frac{6}{7} - \frac{2}{7}$ =

5. $\frac{17}{32} - \frac{9}{32}$ =

6. $\frac{43}{100} - \frac{17}{100}$ =

Math Work

7. $\frac{19}{20} - \frac{7}{20}$ =

8. $\frac{13}{35} - \frac{6}{35}$ =

9. $\frac{77}{100} - \frac{31}{100}$ =

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Subject: _____ Name: _____

Period: _____ Date: _____

Worksheet for Adding and Subtracting Unlike Fractions

Number and write problems in the space at left.
Find the LCD of the fractions. Then add or subtract.
Reduce answers to lowest terms. Rename improper fractions. Show all math work.

Problem **LCD = _____** ***Math Work***

	×1	×2	×3	×4	×5	×6	×7	×8	×9

Problem **LCD = _____** ***Math Work***

	×1	×2	×3	×4	×5	×6	×7	×8	×9

Problem **LCD = _____** ***Math Work***

	×1	×2	×3	×4	×5	×6	×7	×8	×9

Problem **LCD = _____** ***Math Work***

	×1	×2	×3	×4	×5	×6	×7	×8	×9

Problem **LCD = _____** ***Math Work***

	×1	×2	×3	×4	×5	×6	×7	×8	×9

Note to the teacher: This WorkMaster can be used repeatedly.

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SF55

Worksheet for adding and subtracting unlike fractions/***SIMPLE FRACTIONS***, Unit 7, pp. 54–55.

Subject: _____ Name: _____

Period: _____ Date: _____

Subtracting with Whole or Mixed Numbers

Solve these problems. Reduce answers. Rename improper fractions. Show your math work.

Math Work

1. $6 - \frac{2}{3}$ = _____

2. $8 - \frac{4}{5}$ = _____

3. $3 - \frac{7}{9}$ =

4. $1 - \frac{2}{3}$ = _____

5. $1 - \frac{3}{7}$ = _____

6. $1 - \frac{4}{9}$ =

Math Work

7. $2\frac{1}{2} - \frac{4}{5}$ = _____

8. $6\frac{1}{3} - \frac{1}{4}$ = _____

9. $8\frac{1}{2} - \frac{1}{3}$ = _____

10. $7\frac{1}{5} - \frac{2}{3}$ =

11. $4\frac{3}{4} - \frac{1}{16}$ =

12. $5\frac{2}{3} - \frac{1}{2}$ =

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 7: Word Problems

To solve these problems, you'll add or subtract. Read the problem. Then write a math problem for it. Reduce answers to lowest terms. Rename improper fractions.

1. Tam is mixing paint. He mixes $\frac{3}{4}$ gallon of white paint with $\frac{1}{2}$ gallon of blue paint. How much paint does he have altogether?

2. The Ruiz family spends $\frac{1}{3}$ of its monthly income on rent and $\frac{1}{5}$ on food. What part of its monthly income does the family spend on rent and food?

3. Jamie bought $\frac{2}{3}$ yard of fabric. She used $\frac{1}{4}$ yard to make pot holders. How much fabric is left?

4. Miyumi and Yoshi are making two kinds of cookies. For one kind, they need $\frac{1}{3}$ cup of milk. For the other kind, they need $\frac{1}{2}$ cup of milk. How much milk do they need altogether?

5. Pablo is on a swim team. He swims 5 miles a week. On Monday, he swims $\frac{5}{8}$ of a mile. How many more miles will he swim this week?

6. You buy $\frac{3}{8}$ pound of cheddar cheese. You also buy $\frac{1}{2}$ pound of cream cheese. How much cheese do you buy altogether?

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 7: Fraction Check

Write two problems for each kind of addition and subtraction problem. Then solve your problems. Reduce answers to lowest terms. Rename improper fractions. Then check your answers.

A. Adding Like Fractions

1. 2.

B. Adding Unlike Fractions

1. 2.

C. Adding Whole Numbers and Fractions

1. 2.

D. Subtracting Like Fractions

1. 2.

E. Subtracting Unlike Fractions

1. 2.

F. Subtracting Whole Numbers and Fractions

1. 2.

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 8: Dividing Fractions

Solve these problems. Show all your math work. Reduce answers to lowest terms. Rename improper fractions. Then check your answers.

1. $\frac{1}{2} \div \frac{2}{5} =$

2. $\frac{3}{8} \div \frac{2}{9} =$

3. $\frac{2}{3} \div \frac{3}{4} =$

---

4. $\frac{5}{6} \div 8 =$

5. $\frac{3}{5} \div 2\frac{1}{2} =$

6. $4 \div \frac{3}{7} =$

---

7. Carolina buys $\frac{3}{4}$ yard of white ribbon. She cuts the ribbon into pieces $\frac{6}{16}$ of a yard long. How many pieces of ribbon does she cut?

8. Mel types 12 pages per hour. How many $1\frac{1}{2}$ page reports can he type in an hour?

Score:

_____ no. right

_____ no. wrong

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Period: _____ Date: _____

Practice Dividing Fractions

Solve these problems. (Do your math work on another sheet of paper.) Reduce your answers. Rename improper fractions. Then check your answers.

Practice 1

1. $\frac{2}{3} \div \frac{1}{2} =$
2. $\frac{3}{4} \div \frac{1}{2} =$
3. $\frac{3}{8} \div \frac{1}{4} =$
4. $\frac{4}{5} \div \frac{2}{3} =$
5. $\frac{2}{5} \div \frac{3}{4} =$
6. $\frac{1}{4} \div \frac{1}{2} =$
7. $\frac{2}{3} \div \frac{5}{6} =$
8. $\frac{3}{8} \div \frac{3}{5} =$
9. $\frac{2}{7} \div \frac{3}{5} =$
10. $\frac{3}{4} \div \frac{5}{6} =$

Practice 2

1. $\frac{5}{9} \div \frac{1}{3} =$
2. $\frac{7}{8} \div \frac{5}{6} =$
3. $\frac{3}{4} \div \frac{3}{16} =$
4. $\frac{9}{10} \div \frac{3}{8} =$
5. $\frac{5}{12} \div \frac{1}{3} =$
6. $\frac{2}{3} \div \frac{1}{2} =$
7. $\frac{6}{7} \div \frac{1}{7} =$
8. $\frac{4}{21} \div \frac{3}{4} =$
9. $\frac{5}{12} \div \frac{3}{16} =$
10. $\frac{2}{3} \div \frac{15}{48} =$

Practice 3

1. $\frac{1}{2} \div \frac{1}{8} =$
2. $\frac{1}{2} \div \frac{3}{5} =$
3. $\frac{1}{2} \div \frac{2}{5} =$
4. $\frac{1}{2} \div \frac{4}{7} =$
5. $\frac{1}{2} \div \frac{1}{3} =$
6. $\frac{1}{2} \div \frac{3}{4} =$
7. $\frac{1}{2} \div \frac{3}{8} =$
8. $\frac{1}{2} \div \frac{2}{9} =$
9. $\frac{1}{2} \div \frac{1}{10} =$
10. $\frac{1}{2} \div \frac{3}{15} =$

Practice 4

1. $\frac{5}{7} \div \frac{3}{8} =$
2. $\frac{6}{10} \div \frac{2}{4} =$
3. $\frac{4}{9} \div \frac{2}{3} =$
4. $\frac{3}{10} \div \frac{5}{9} =$
5. $\frac{4}{5} \div \frac{8}{11} =$
6. $\frac{5}{7} \div \frac{3}{21} =$
7. $\frac{8}{10} \div \frac{7}{14} =$
8. $\frac{6}{9} \div \frac{8}{12} =$
9. $\frac{15}{18} \div \frac{5}{6} =$
10. $\frac{8}{11} \div \frac{14}{22} =$

Practice 5

1. $\frac{4}{5} \div \frac{8}{15} =$
2. $\frac{3}{7} \div \frac{15}{21} =$
3. $\frac{9}{16} \div \frac{4}{10} =$
4. $\frac{12}{15} \div \frac{2}{5} =$
5. $\frac{8}{14} \div \frac{16}{28} =$
6. $\frac{9}{15} \div \frac{27}{45} =$
7. $\frac{1}{28} \div \frac{1}{7} =$
8. $\frac{15}{35} \div \frac{3}{7} =$
9. $\frac{8}{42} \div \frac{10}{60} =$
10. $\frac{10}{28} \div \frac{4}{14} =$

Practice 6

1. $\frac{12}{18} \div \frac{10}{18} =$
2. $\frac{17}{21} \div \frac{5}{7} =$
3. $\frac{11}{15} \div \frac{12}{21} =$
4. $\frac{10}{24} \div \frac{14}{15} =$
5. $\frac{18}{25} \div \frac{9}{15} =$
6. $\frac{22}{36} \div \frac{14}{28} =$
7. $\frac{31}{48} \div \frac{10}{21} =$
8. $\frac{18}{50} \div \frac{16}{25} =$
9. $\frac{34}{62} \div \frac{32}{34} =$
10. $\frac{8}{61} \div \frac{16}{17} =$

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Period: _____ Date: _____

Dividing by Whole or Mixed Numbers

By Whole Numbers

Solve these problems. Reduce your answers. Rename improper fractions. Then check your answers.

1. $\frac{2}{3} \div 3 =$

2. $\frac{5}{6} \div 8 =$

3. $\frac{6}{10} \div 14 =$

4. $\frac{4}{7} \div 28 =$

5. $\frac{5}{10} \div 40 =$

6. $\frac{10}{12} \div 62 =$

By Mixed Numbers

Solve these problems. Reduce your answers. Rename improper fractions. Then check your answers.

1. $\frac{1}{4} \div 2\frac{1}{2} =$

2. $\frac{3}{8} \div 9\frac{3}{4} =$

3. $\frac{5}{9} \div 12\frac{2}{3} =$

4. $\frac{1}{2} \div 26\frac{5}{6} =$

5. $\frac{2}{3} \div 18\frac{10}{21} =$

6. $\frac{6}{15} \div 3\frac{5}{6} =$

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Unit 8: Word Problems

To solve these word problems, you'd divide. Read each problem. Write a math problem for it. Then solve the problem. Reduce answers to lowest terms. Rename improper fractions. Check your answers.

1. Pat takes $\frac{3}{4}$ of an hour to build a birdhouse. How many birdhouses can Pat build in 3 hours?

2. Jamila wants to make cookies for 2 cookie sales. Her recipe calls for $\frac{1}{3}$ cup raisins for each batch of cookies. She has 5 cups of raisins. How many batches of cookies can she make?

3. Raoul's car engine has a bad oil leak. He has to add oil every $\frac{1}{2}$ mile. The repair shop is 4 miles away. How many times will Raoul have to stop and add oil?

4. Ahmed has $\frac{1}{2}$ gallon of ice cream. He wants to make 8 ice-cream cones for his friends. How much ice cream can he put on each cone?

5. Carla buys $\frac{3}{4}$ yard of bell wire for a science project. She cuts the wire into pieces $\frac{3}{8}$ of a yard long. How many pieces of wire does she have now?

6. Luther walks $\frac{3}{4}$ mile to school. Each block that he walks is $\frac{1}{8}$ of a mile long. How many blocks does Luther walk to school?

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Subject: _____ Name: _____

Period: _____ Date: _____

Unit 8: Fraction Check

A. Finish writing these math problems. Then solve the problems. Reduce answers to lowest terms. Rename improper fractions. Then check your answers.

1. $\frac{1}{3}$ ÷ _____ (fraction) =

2. $\frac{3}{8}$ ÷ _____ (whole number) =

3. $\frac{5}{6}$ ÷ _____ (mixed number) =

4. $\frac{10}{21}$ ÷ _____ (fraction) =

B. Write a word problem that you solve by dividing a fraction by a whole number.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Then solve the math problem. Reduce the answer to lowest terms. Rename an improper fraction. Check your answer.

Math Work

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Period: _____ Date: _____

Simple Fractions Review

Solve these problems. (Do your math work on another sheet of paper.) Reduce answers to lowest terms. Rename improper fractions. Then check your answers.

Set A

1. $\frac{3}{8} + \frac{2}{3}$ =

2. $1\frac{2}{5} - \frac{4}{5}$ =

3. $\frac{5}{6} \times \frac{1}{2}$ =

4. $\frac{3}{8} \div \frac{2}{3}$ =

5. $\frac{5}{6} - \frac{3}{8}$ =

6. $\frac{5}{7} + \frac{1}{7}$ =

7. $4\frac{1}{7} - \frac{2}{3}$ =

8. $1\frac{2}{5} \times \frac{3}{4}$ =

9. $\frac{7}{8} \times 6$ =

10. $\frac{4}{5} \div 1\frac{1}{4}$ =

11. $2\frac{1}{2} - \frac{5}{6}$ =

12. $\frac{2}{3} \div 18$ =

Set B

1. $\frac{2}{3} \times 1\frac{1}{2}$ =
2. $1\frac{1}{2} + \frac{2}{5}$ =
3. $\frac{3}{7} \div \frac{1}{2}$ =
4. $2 - \frac{3}{8}$ =
5. $4\frac{1}{2} + 3\frac{1}{2}$ =
6. $6\frac{7}{8} - 2\frac{5}{8}$ =
7. $\frac{3}{4} \div \frac{4}{5}$ =
8. $\frac{3}{15} \times \frac{5}{18}$ =
9. $\frac{2}{5} \times 6$ =
10. $\frac{4}{7} \div \frac{8}{21}$ =
11. $29\frac{2}{4} - 18\frac{3}{5}$ =
12. $\frac{2}{5} \times 24\frac{2}{3}$ =
13. $\frac{3}{9} \div 1\frac{1}{3}$ =
14. $10\frac{1}{2} - 4\frac{1}{5}$ =
15. $18 + 10\frac{2}{5} + 4\frac{3}{4}$ =

Set C

1. Suppose you earn $5 per hour. If you work overtime, you get paid time and a half. That means for 1 hour of work, you get paid for $1\frac{1}{2}$ hours. How much is your hourly pay for overtime work?
2. Tina's baby weighed $6\frac{3}{4}$ pounds last month. He weighs $8\frac{1}{4}$ pounds now. How many pounds did he gain?
3. Jerry ran $3\frac{1}{2}$ miles yesterday. Today he runs $4\frac{3}{4}$ miles. How many miles did he run altogether?
4. Suppose you walk 1 mile to work. Each block that you walk is $\frac{1}{8}$ of a mile long. How many blocks do you walk?

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